SCHOOL AND SOCIETY

FOUNDED BY J. McKEEN CATTELL IN 1915. WITH IT HAVE BEEN COMBINED THE EDUCATIONAL REVIEW, ESTABLISHED IN 1891, THE TEACHERS MAGAZINE, ESTABLISHED IN 1878, AND THE SCHOOL JOURNAL, ESTABLISHED IN 1874.

EDITORIAL OFFICE: 525 WEST 120TH STREET, NEW YORK CITY

Volume 50 | SATURDAY, DECEMBER 16, 1939 | Number 1303

STATISTICS OF REGISTRATION IN AMERICAN UNIVERSITIES AND COLLEGES, 1939

By Dr. RAYMOND WALTERS

PRESIDENT OF THE UNIVERSITY OF CINCINNATI

IN this closing year of the 1930's, attendance in colleges and universities of the United States maintains the upward trend of the latter half of the decade, according to reports recently received from 648 approved institutions. They have 873,697 full-time students and a grand total (including part-time and summer-school registration) of 1,323,874. These figures form an increase of 2.7 per cent. in full-time students and of 1.2 per cent. in grand totals over the corresponding tallies for November, 1938.

Of special interest is the measure in which independent colleges of arts and sciences give evidence of enrolment recovery. The attendance of 236,915 full-time students in 401 such colleges is 3.4 per cent. larger than last year. This exceeds the gain of 2.5 per cent. recorded by 55 universities under public control having 275,458 full-time students and the decrease of 1.3 per cent. in the 184,766 students attending 51 universities under private control. As to freshmen entering upon liberal arts courses, the independent colleges likewise record a gain over the universities.

A detailed analysis of 38 urban universities discloses slight decreases for both full-time and part-time students. The exceptions are in universities located in cities ranging from 250,000 to 500,000 population, which show full-time increases of approximately 2 per cent., and in universities in cities from 100,000 to 250,000, where there is an increase of 8.7 per cent. in part-time students.

The largest full-time gains reported for this academic year are 7.8 per cent. in 71 teachers colleges (73,152 students) and 6.3 per cent. in 48 technological institutions (97,361 students).

As to geographical distribution it may be said that the enrolment increases are widespread. The largest gain over 1938 is in the East South Central division, where the state leaders are Mississippi and Kentucky, and in the West South Central division, where Oklahoma and Louisiana lead.

It should be observed that the attendance gains this year follow increases of 6.6 per cent. in full-time enrolment and 6.8 per cent. in grand totals for 1938 over 1937; and of 3.6 per cent. and 4 per cent., respectively, for 1937 over 1936. This year the National Youth Administration payments of an average of $15 monthly for work performed by undergraduates and $30 for work by graduate students go to 10 per cent. of the enrolment of substantially full-time students; in 1938, the percentage was 9.3 per cent.; in 1937, 8 per cent.; in 1936, 12 per cent.

STATEMENT OF BASIS OF THIS STUDY

For some years this annual SCHOOL AND SOCIETY study has been based on the list of institutions accredited by the regional asso-

ciations, as published annually by the American Council on Education. Inasmuch as the council has discontinued such publication, this 1939 study utilizes the similar compilation prepared by the Council on Medical Education of the American Medical Association. It includes universities and senior colleges approved by the Middle States Association of Colleges and Secondary Schools, the North Central Association of Colleges and Secondary Schools, the Northwest Association of Secondary and Higher Schools, the Southern Association of Colleges and Secondary Schools and the institutional members of the New England Association of Colleges and Secondary Schools. All the universities and senior colleges in the A.M.A. compiled list were invited to report their enrolments: nearly all responded. Of the 648 institutions reporting, about 285 are also on the accepted list of the Association of American Universities, which is a national list.

In Table I the classification is in accordance with the recommendations of a committee of the Association of American Colleges, of which the present writer was chairman. There are manifest advantages for comparison in bringing together data of institutions which are alike in organization and purpose. Should there be any misinterpretations in the classifications of Table I, the writer will welcome corrections from the heads of the institutions concerned.

Table II assembles full-time student totals according to the accepted geographical divisions of the United States.

Table III gives figures in detail for 30 universities which have been included for many years in statistical articles in *Science* and later in SCHOOL AND SOCIETY.

Table IV shows comparisons in enrolment for 1938 and 1939 in classified institutions.

Table V presents the 25 states having the largest aggregate enrolments of full-time students.

Table VI gives a list of the 25 largest institutions of the United States reporting in this study.

Table VII presents an analysis of freshman enrolments of 1938 and 1939 in 623 institutions.

Table VIII shows a comparison of attendance for 1938 and 1939 in urban universities.

The tables differentiate between the enrolment of full-time and part-time undergraduates. For this series the full-time student is defined as a student who has completed a high-school course and is devoting substantially his full time to study during the collegiate year. The student whose main time and attention are given to some other employment and who takes college and university courses in late afternoon, evening and Saturday classes is listed as a part-time student. The grand-total figures for 1939 include full-time students, part-time students and summer-school students of 1939 (deducting duplicates), but do not include extension and correspondence students, who are, however, recorded in Table III. It is interpreted here that extension and correspondence work is in courses not leading to a degree, whereas "part-time" courses do so count.

SUMMARY AS TO TYPES OF INSTITUTIONS

Attendance trends in respect to types of institutions are indicated in Table IV, showing summaries of figures for November, 1938, and November, 1939. These statistics disclose that: Of the 626 institutions reporting both this year and last, 55 universities under public control have 6,614 more full-time students than in 1938, or 2.5 per cent. increase (as compared with 7.3 per cent. increase in this group for 1938 over 1937). Fifty-one universities under private control (which increased 2.2 per cent., 1938 over 1937) show the only decline for the five groups. With 2,430 fewer full-

time students than last year, they show a decline of 1.3 per cent. The colleges of arts and sciences, which include 401 separate institutions, have 7,738 more students, or 3.4 per cent. increase (as compared with 5.3 per cent. increase for 1938 over 1937); 48 technological institutions have 5,765 more full-time students, or 6.3 per cent. increase (as compared with 9.7 per cent. increase for 1938 over 1937); 71 teachers colleges have 5,326 more full-time students, or 7.9 per cent. increase (as compared with 17.9 per cent. increase for 1938 over 1937).

Normal schools and separate junior colleges are not included in this report. The American Association of Junior Colleges reports each January regarding its membership. Last January the total enrolments reported for 1938–39 in 556 junior colleges were 155,588, an increase of 13.9 per cent.

TABLE I

I. UNIVERSITIES AND LARGE INSTITUTIONS OF COMPLEX ORGANIZATION
(For both men and women, unless otherwise indicated)

1. UNDER PUBLIC CONTROL

Institution	Students Full-time	Students All Residents	Teaching Staff
C. C. of New York *M*	8,548	22,775	925
Indiana U.	6,271	7,999	403
Louisiana S. U.	7,813	9,993	655
Miami U.	3,148	3,813	194
Mont. State U.	1,967	2,691	91
Mun. U. of Wichita	1,512	2,101	100
Ohio State U.	13,231	17,064	905
Ohio U.	3,238	4,581	355
Oregon State C.	4,505	5,264	331
Pennsylvania State C.	7,200	9,284	1,439
State C. of Wash.	4,014	4,631	245
U. of Akron	1,518	3,325	94
U. of Alabama	5,276	6,801	355
U. of Alaska	227	237	29
U. of Arizona	2,655	3,030	190
U. of Arkansas	2,653	3,361	194
U. of California	26,004	31,932	2,067
U. of Cincinnati	4,319	11,525	647
U. of Colorado	3,896	7,440	377
U. of Connecticut	1,198	1,285	123
U. of Delaware	945	1,355	106
U. of Florida	3,323	5,164	197
U. of Georgia	3,402	4,939	208
U. of Idaho	2,762	3,554	200
U. of Illinois	13,510	16,157	1,657
U. of Iowa	6,260	8,795	645
U. of Kansas	4,387	5,282	257
U. of Kentucky	3,426	5,572	296
U. of Louisville	2,014	3,499	321
U. of Maine	2,057	2,617	167
U. of Maryland	4,001	5,751	678
U. of Michigan	12,098	15,793	773
U. of Minnesota	15,301	22,676	872
U. of Mississippi	1,400	1,758	100
U. of Missouri	5,954	8,953	444
U. of Nebraska	6,771	8,548	400
U. of Nevada	1,015	1,250	85
U. of New Hampshire	1,914	2,499	144
U. of New Mexico	1,410	2,476	120
U. of N. Carolina	3,846	5,664	325
U. of N. Dakota	1,773	2,069	140
U. of Oklahoma	6,476	8,576	293
U. of Oregon	3,597	4,358	274
U. of S. Carolina	1,948	2,410	104
U. of S. Dakota	843	1,186	98
U. of Tennessee	4,437	6,323	386
U. of Texas	9,872	15,294	633
U. of Toledo	1,878	3,499	137
U. of Utah	3,823	4,782	200
U. of Vermont	1,479	2,329	240
U. of Virginia *M*	2,824	3,827	343
U. of Washington	10,129	13,673	650
U. of Wisconsin	11,268	14,778	560
U. of Wyoming	2,041	2,771	165
Wayne U.	5,277	11,917	695
West Virginia U.	3,031	4,062	267
Totals	275,685	393,288	22,899

2. UNDER PRIVATE CONTROL

Institution	Students Full-time	Students All Residents	Teaching Staff
Boston C. *M*	2,399	3,320	247
Boston U.	6,367	11,529	630
Brigham Young U.	2,284	2,990	135
Brown U.	2,259	2,259	183
Catholic U. of America	1,574	3,428	280
Clark U., Mass.	368	549	41
Columbia U.	14,211	27,628	3,149
Cornell U.	6,949	8,649	1,078
Creighton U.	1,497	2,017	221
Dartmouth *M*	2,426	2,431	261
De Paul	2,484	5,787	185
Drake U.	1,326	2,266	112
Duke U.	3,536	5,759	424
Emory U.	1,374	1,850	315
Fordham U. *M*	3,453	7,265	406
Georgetown U. *M*	1,755	2,567	503
George Washington U.	1,661	6,895	419
Harvard *M*	8,209	10,571	1,950
Howard U.	1,386	2,019	244
Johns Hopkins	1,653	5,518	662
Lehigh *M*	1,819	2,088	188
Loyola, Ill.	3,888	4,903	735
Loyola, La.	980	2,126	146
Marquette	3,521	4,669	403
New York U.	12,745	36,880	2,167
Northwestern	6,075	18,136	818
Princeton *M*	2,694	2,694	318
Rice Inst.	1,434	1,434	93
Rutgers	3,060	5,033	383
St. John's U., N. Y.	4,374	6,564	320
St. Louis U.	3,475	6,845	683
Southern Methodist U.	1,715	3,339	126
Stanford	4,345	4,904	743
Syracuse	6,294	8,174	564
Temple	5,851	9,017	728
Tufts	2,064	2,135	610
Tulane	3,225	4,608	466
U. of Buffalo	1,650	4,874	557
U. of Chicago	6,011	10,165	860
U. of Denver	1,866	4,424	271
U. of Detroit	1,981	3,399	201
U. of Notre Dame *M*	3,268	4,362	220
U. of Pennsylvania	7,347	14,602	1,565
U. of Pittsburgh	6,265	12,014	1,045
U. of Richmond	1,129	1,763	100
U. of Rochester	2,074	2,951	453
U. of Southern Calif.	4,876	15,207	636
Vanderbilt	1,784	1,784	454
Washington	3,190	4,011	464
Western Reserve	3,228	10,108	768
Yale *M*	5,367	5,367	756
Totals	184,766	333,877	29,286

TABLE I—(*Continued*)

II. COLLEGES OF ARTS AND SCIENCES

(For men and women, and privately controlled, unless otherwise indicated. *Pub.* = Publicly controlled. *M* = Men. *W* = Women)

Institution	Students Full-time	Students All Residents	Teaching Staff
Adelphi *W*	470	525	52
Agnes Scott *W*	466	468	49
Alabama C. *Pub. W*	869	1,290	99
Albertus Magnus	178	483	35
Albion	785	799	49
Albright	380	624	30
Alfred U.	632	748	72
Allegheny	655	760	50
Alma	388	408	28
American Int. C.	590	614	28
American U.	424	1,096	121
Amherst	849	863	90
Antioch	714	727	63
Arkansas S. C. *Pub.*	577	1,312	39
Ashland	288	578	31
Atlanta U.	173	947	44
Augustana, Ill.	593	890	52
Augustana, S. D.	494	619	32
Aurora	185	216	21
Baker	416	445	30
Baldwin-Wallace	658	831	55
Bates	699	978	48
Beloit	587	589	50
Benedict *M*	403	798	21
Bennett *W*	316	335	26
Bennington *W*	281	281	60
Berea	810	896	66
Bethany, Kans.	297	364	35
Bethany, W. Va.	389	397	34
Bethel	319	459	33
Billings Poly. Inst.	363	566	23
Birmingham-Southern	870	1,203	55
Bishop	368	624	30
Blue Mountain	303	437	29
Bowdoin *M*	649	649	64
Bowling Green *Pub.*	1,401	2,683	82
Bradley Polytech. Inst.	870	1,159	65
Brenau *W*	370	427	44
Bridgewater	281	282	29
Brooklyn C. *Pub.*	6,618	13,410	533
Bryn Mawr *W*	561	635	100
Bucknell U.	1,226	1,629	82
Butler U.	1,608	3,492	131
Calvin C.	458	475	25
Canisius *M*	780	1,513	55
Capital U.	740	912	75
Carleton	841	862	66
Carroll, Mont. *M*	113	118	14
Carroll, Wis.	577	623	35
Carson-Newman	412	502	30
Carthage	277	323	24
Catawba	469	769	61
Centenary	630	858	42
Central	672	778	61
Central Y. M. C. A.	689	2,534	106
Centre	335	369	27
Chapman	227	284	23
Citadel *Pub. M.*	1,190	1,190	68
Clark U. Ga.	329	359	24
Clarke C. *W*	309	560	44
Coe	775	852	60
Coker *W*	213	219	29
Colby	668	679	53
Colgate *M*	1,092	1,092	95
C. Misericordia *W*	249	652	40
C. of Charleston *Pub.*	398	519	19
C. of Chestnut Hill *W*	284	558	45
C. of Emporia	316	331	25
C. of Idaho	420	481	28
C. of Medical Evangelists.	484	484	380
C. of Mt. St. Joseph-on-the-Ohio *W*	240	471	36
C. of Mt. St. Vincent *W*	451	636	39
C. of New Rochelle *W*	744	760	48
C. of Notre Dame *W*	215	370	32
C. of Puget Sound	635	942	49
C. of St. Benedict *W*	271	560	35
C. of St. Catherine *W*	616	907	53
C. of St. Elizabeth *W*	420	809	56
C. of St. Francis	171	574	35
C. of St. Mary-of-the-Wasatch *W*	94	161	19
C. of St. Rose *W*	352	604	37
C. of St. Teresa *W*	392	798	40
C. of St. Thomas *M*	814	821	52
C. of the Holy Names *W.*	322	661	33
C. of the Pacific	325	757	68
C. of Wooster	958	974	71
Colorado C.	760	847	64
Columbia C. *W*	305	305	25
Concordia	502	507	42
Connecticut C. *W*	748	763	80
Converse *W*	362	384	42
Cornell C. of Ia.	608	707	46
Culver-Stockton	259	324	23
Dakota-Wesleyan	358	447	29
Davidson *M*	646	671	45
Denison U.	847	860	62
De Pauw	1,455	1,466	91
Dickinson	561	561	36
Dillard U.	241	362	27
Doane	293	297	27
Dominican C. of San Rafael	160	356	34
Drew U.	411	411	49
Drury	337	357	33
Duchesne	139	139	16
Duquesne U.	1,323	3,797	164
D'Youville *W*	318	318	24
Earlham	454	477	42
Elmhurst	358	377	29
Elmira *W*	344	349	50
Emmanuel *W*	514	1,214	51
Emmanuel Missionary	407	466	29
Emory & Henry	324	413	18
Erskine	360	360	22
Evansville C.	412	882	32
Findlay	322	432	22
Fisk U.	439	645	46
Florida Southern	520	1,125	49
Florida S. C. for *W. Pub.*	1,931	2,725	135
Franklin C. of Ind.	352	368	27
Franklin & Marshall *M.*	923	934	48
Fresno S. C. *Pub.*	2,146	2,557	104
Furman U.	907	1,149	65
Geneva	633	895	36
Georgetown	267	339	29
George Pepperdine	286	286	26
George Williams	247	281	16
Georgia S. C. for *W. Pub.*	1,469	2,333	109
Georgia S. W's C. *Pub.*	350	470	25
Georgian Court *W*	155	290	31
Gettysburg *M*	609	642	44
Gonzaga U. *M*	975	1,009	107
Good Counsel	206	206	33
Goucher *W*	598	608	69
Greensboro *W*	375	375	29
Grinnell	731	749	67
Grove City C.	913	972	51
Guilford	386	414	25
Gustavus Adolphus	570	573	31
Hamilton *M*	452	452	45
Hamline U.	653	660	45
Hampden-Sydney *M*	391	391	20
Hanover	367	367	23
Hardin-Simmons U.	640	926	41
Hastings	463	678	41
Haverford *M*	329	329	44
Heidelberg	389	425	34
Hendrix	413	418	37
Hillsdale	399	408	35
Hiram	334	334	27
Hobart *M*	361	364	47
Hollins *W*	322	322	39
Holy Cross *M*	1,269	1,269	84
Hood *W*	446	471	51
Hope	521	521	30
Houghton	463	479	33
Howard C.	607	1,141	54
H. Sophie Newcomb	711	735	72
Hunter C. *Pub. W*	7,000	11,560	602
Huntingdon C. *W*	327	432	29
Illinois C.	375	379	26
Illinois Wesleyan U.	691	828	52

TABLE I—(*Continued*)

Institution	Students Full-time	Students All Residents	Teaching Staff
Immaculata *W*	266	500	37
Immaculate Heart *W*	487	582	34
Incarnate Word *W*	455	882	46
Iowa Wesleyan	226	304	21
James Millikin U.	651	705	46
Jamestown	383	432	29
John B. Stetson U.	733	919	58
John Carroll U. *M*	653	1,114	51
Johnson C. Smith U.	358	678	24
Judson C. *W*	261	261	34
Juniata	411	489	45
Kalamazoo	377	384	28
Kent State U. *Pub.*	2,409	4,881	155
Kentucky State	560	837	29
Kenyon *M*	293	296	38
Keuka *W*	232	232	26
Knox	600	600	54
Knoxville	270	322	21
Lafayette *M*	962	962	97
Lake Erie *W*	172	172	28
Lake Forest	372	380	27
Lane	577	717	21
La Salle C. *M*	404	459	31
Lawrence	753	762	105
Lebanon Valley	411	572	35
Le Moyne	300	466	20
Lenoir-Rhyne	520	615	26
Limestone *W*	333	408	25
Lincoln Memorial U.	500	616	30
Lincoln U., Mo.	492	697	48
Lincoln U., Pa. *M*	389	392	27
Lindenwood *W*	462	462	43
Linfield	473	478	35
Livingstone	264	380	16
Loras	454	997	56
Loretto Heights *W*	153	268	30
Louisiana C.	387	491	22
Louisville Mun. C. for Negroes	144	250	13
Loyola C., Md. *M*	390	390	25
Loyola U., Cal. *M*	660	712	56
Luther	391	416	34
Lynchburg	249	294	22
Macalester	678	684	46
MacMurray *W*	606	742	47
Madison	1,120	1,608	78
Manchester	663	1,264	42
Manhattan	1,196	1,203	116
Manhattanville C. of the Sacred Heart *W*	352	538	53
Marietta	415	433	32
Marshall *Pub.*	1,710	3,124	96
Mary Baldwin *W*	317	317	29
Marygrove *W*	557	1,328	57
Mary Hardin-Baylor *W*	394	570	46
Marylhurst *W*	200	286	27
Marymount, Kans. *W*	141	347	27
Marymount, N. Y. *W*	224	224	37
Maryville, Tenn.	794	797	46
Marywood *W*	468	1,057	68
Mercer U.	497	661	46
Mercyhurst *W*	186	328	32
Meredith *W*	522	552	46
Middlebury	799	1,486	63
Mills *W*	589	841	101
Millsaps	593	775	35
Milwaukee-Downer *W*	317	335	47
Mississippi C.	385	563	22
Mississippi S. C. for *W. Pub.*	1,163	1,200	78
Missouri Valley	288	347	23
Monmouth	571	611	36
Moravian *M*	188	204	20
Morehouse	417	1,134	57
Morgan	566	1,063	36
Morningside	484	595	42
Morris Brown	524	639	22
Mount Angel *W*	164	296	30
Mount Holyoke *W*	1,094	1,104	117
Mount Mary *W*	437	1,114	83
Mount Mercy *W*	245	553	32
Mount St. Mary's Cal. *W*	324	650	38
Mount St. Mary's Md. *M*	294	350	35
Mount St. Scholastica *W*	280	636	35
Mount Union	546	655	43
Muhlenberg *M*	512	1,111	35
Muskingum	686	1,040	61
Nazareth, Ky.	301	841	64
Nazareth, N. Y. *W*	279	342	33
Nebraska Wesleyan	430	552	46
Newberry	387	544	26
N. Y. S. C. for Teachers	1,270	2,534	87
Niagara U. *M*	1,292	1,292	97
North Carolina C. for Negroes	625	1,009	29
North Central	570	586	41
Northwest Nazarene	304	340	24
Norwich U.	376	376	36
Notre Dame, O. *W*	183	183	33
Oberlin	1,846	1,948	170
Occidental	734	759	66
Ohio Wesleyan U.	1,406	1,418	107
Oklahoma C. for *W. Pub.*	968	1,031	59
Ottawa U.	283	342	25
Otterbein	411	436	36
Our Lady of the Lake *W*	268	953	53
Pacific Union	560	714	42
Pacific U.	332	336	25
Paine	222	327	14
Park	510	510	40
Parsons	312	395	29
Pembroke *W*	491	497	121
Pennsylvania C. for *W*	301	321	37
Phillips U.	505	789	36
Pomona C.	819	831	73
Prairie View S. C.	1,041	1,788	91
Principia	332	332	26
Providence *M*	839	1,516	65
Queens-Chicora *W*	401	414	32
Radcliffe *W*	847	1,010	400
Randolph-Macon *M*	310	310	17
Randolph-Macon *W*	650	666	71
Reed	501	545	61
Regis *W*	473	748	46
Ripon	430	430	35
Roanoke *M*	342	453	26
Rockford *W*	292	419	35
Rockhurst *M*	237	664	33
Rollins	386	389	63
Rosary *W*	506	1,106	53
Rosemont *W*	263	323	40
Russell Sage *W*	682	695	72
St. Ambrose *M*	585	1,090	69
St. Benedict's *M*	314	314	35
St. Bonaventure *M*	660	1,024	62
St. Edward's *M*	90	90	10
St. Joseph, Conn.	275	817	32
St. Joseph's, Md. *W*	185	185	39
St. Joseph's, N. Y. *W*	451	451	43
St. Joseph's, Pa. *M*	524	524	30
St. Lawrence U.	1,431	1,671	57
St. Mary of the Springs *W*	160	350	29
St. Mary of the Woods *W*	263	929	39
St. Mary's, Cal.	494	484	40
St. Mary's, Minn. *M*	328	354	29
St. Mary's of Notre Dame *W*	361	621	57
St. Norbert	343	807	42
St. Olaf	1,112	1,124	78
St. Peter's *M*	418	418	29
St. Vincent *M*	514	989	69
St. Francis Xavier, Ill. *W*	186	364	26
Salem, N. C.	317	332	42
Samuel Huston	295	521	20
San Francisco C. for W.	167	420	30
San Francisco S. C. *Pub.*	2,213	3,898	95
Sarah Lawrence *W*	285	287	55
Scripps *W*	220	220	36
Seattle	625	1,401	92
Seattle Pacific	307	373	31
Seton Hall *M*	581	2,221	90
Seton Hill *W*	396	703	55
Shaw U.	408	921	27
Shorter *W*	209	225	26
Simmons C. *W*	1,425	1,642	158
Simpson	475	623	26
Sioux Falls	247	414	25
Skidmore *W*	795	805	79
Smith *W*	2,093	2,093	238
Southwestern, Kans.	488	566	37
Southwestern, Tenn.	446	520	35
Southwest La. Inst. *Pub.*	2,277	3,066	97
Southwestern U.	392	485	31

TABLE I—(*Continued*)

Institution	Students Full-time	Students All Residents	Teaching Staff
Spelman	350	363	39
Spring Hill *M*	321	675	30
Susquehanna U.	323	337	36
Swarthmore	731	736	104
Sweet Briar *W*	454	454	52
Talladega	272	272	29
Tarkio	192	222	18
Texas Christian U.	1,267	2,068	75
Texas S. C. for W. *Pub.*	2,671	3,774	160
The St. Mary *W*	219	629	39
Thiel	248	310	22
Tillotson	358	572	24
Tougaloo	144	144	17
Transylvania	441	635	31
Trinity, Conn. *M*	563	720	55
Trinity, D. C. *W*	368	368	55
Trinity U.	250	344	24
Tusculum	315	315	22
Union, Ky.	267	534	21
Union, Neb.	407	458	33
Union C., N. Y. *M*	826	911	80
U. of Chattanooga	584	918	40
U. of Dayton	747	1,470	84
U. of Dubuque	473	545	30
U. of Omaha	1,208	2,338	62
U. of Portland	777	865	41
U. of Redlands	694	899	63
U. of San Francisco *M*	760	925	77
U. of Santa Clara *M*	516	516	55
U. of Scranton *M*	579	1,086	46
U. of the South *M*	309	324	29
U. of Tulsa	826	1,421	86
Upsala	433	512	34
Ursinus	565	565	45
Ursuline *W*	199	199	33
Valparaiso U.	441	513	40
Vassar *W*	1,225	1,314	166
Villa Maria *W*	221	426	33
Villanova *M*	927	2,609	131
Va. Mil. Inst. *Pub. M*	710	710	54
Va. S. C. for Negroes	1,125	1,630	87
Va. Union U.	602	920	34
Wabash *M*	442	445	30
Wagner Mem. Lutheran C.	274	301	27
Wake Forest *M*	1,052	1,399	55
Walla Walla	529	609	31
Washburn	601	802	61
Washington C.	328	331	24
Washington & Jefferson *M*	568	629	42
Washington & Lee *M*	936	936	60
Webster C. *W*	158	343	34
Wellesley *W*	1,512	1,513	187
Wells *W*	307	307	47
Wesleyan C. *W*	242	245	30
Wesleyan U. *M*	753	761	84
Western C. *W*	302	302	40
Western Maryland	594	948	56
Westminster, Mo. *M*	305	306	21
Westminster, Pa.	705	713	45
W. Va. State C., *Pub.*	846	1,121	44
Wheaton, Ill.	1,006	1,263	77
Wheaton, Mass. *W*	470	470	62
Whitman	584	594	46
Whittier	576	741	49
Whitworth	198	229	24
Wilberforce	711	752	76
Wiley	410	865	27
Willamette U.	796	826	56
William Jewell	438	512	28
William & Mary	1,255	1,625	94
William Smith *W*	188	193	47
Williams *M*	832	832	89
Wilson *W*	383	383	46
Winthrop, *Pub. W*	1,704	2,146	103
Wittenberg	889	1,416	70
Wofford *M*	455	611	23
Woman's C., U. N. C. *Pub.*	2,186	2,601	158
Xavier U., La.	686	1,337	56
Xavier U., Ohio *M*	554	1,439	66
Yankton	341	376	33
Totals	239,618	333,193	21,783

TABLE I—(*Continued*)

III. INDEPENDENT TECHNICAL INSTITUTIONS

1. TECHNOLOGICAL INSTITUTIONS

Institution	Students Full-time	Students All Residents	Teaching Staff
A. & M. C. of Texas *Pub.*	5,885	7,008	368
A. & T. C. of N. Carolina	778	778	45
Ala. Polytech. Inst. *Pub.*	3,399	4,823	182
Armour Inst. of Tech.	1,370	2,742	153
Calif. Inst. Tech. *M*	885	885	402
Carnegie Tech.	2,389	4,361	378
Case S. of Ap. Science *M*	920	1,719	126
Clarkson Mem. C. of Tech. *M*	564	564	37
Clemson Ag. & M. C. *Pub. M*	2,200	2,504	147
Colo. S. of Mines. *Pub. M*	762	814	66
Colo. S. C. of A. & M. Arts *Pub.*	1,850	3,154	154
Drexel Inst. of Tech.	1,752	1,957	124
Florida A. & M. C.	831	1,419	70
Georgia S. of Tech. *Pub. M*	2,553	2,713	158
Hampton Inst.	833	1,430	124
Iowa S. C. of Ag. & M. A. *Pub.*	6,398	7,634	561
Kansas S. C. of Ag. & Ap. Sc. *Pub.*	4,075	4,646	340
Lewis Inst.	623	2,414	92
Louisiana Polytech. Inst. *Pub.*	2,052	2,631	110
Mass. Inst. of Tech. *M*	3,100	4,655	535
Massachusetts S. C. *Pub.*	1,347	1,469	133
Mich. C. of M. & Tech. *Pub.*	873	877	74
Mich. S. C. of Ag. & A. S.	6,222	7,474	460
Mississippi S. C. *Pub.*	2,132	2,638	127
Montana S. of Mines, *Pub.*	338	338	21
Montana S. C. *Pub.*	1,676	1,750	105
New Mex. C. of A. & M. Arts *Pub.*	964	1,198	83
N. Car. S. C. of Ag. & Eng. *Pub.*	2,278	2,487	225
N. Dakota Ag. C.	1,794	2,043	123
Oklahoma A. & M. *Pub.*	5,890	7,650	369
Poly. Inst. of Brooklyn *M*	592	2,593	123
Purdue *Pub.*	6,767	7,856	434
Rensselaer Poly. Inst. *M.*	1,449	1,491	150
Rhode Island S. C. *Pub.*	1,226	1,238	96
Rose Polytech. Inst. *M*	260	261	27
S. Dakota S. C. of Ag. & M. Arts *Pub.*	1,299	1,403	126
S. Dakota S. S. of Mines, *Pub.*	395	400	30
Southern U. & Ag. & Mech. C.	844	1,464	46
Springfield College	515	730	47
State A. & M. C. (S. C.)	761	1,270	59
Stevens Inst. of Tech. *M*	603	914	70
Tenn. Poly. Inst.	703	741	35
Texas C. of A. & Ind. *Pub.*	968	1,680	61
Texas C. of Mines & Met.	1,045	1,522	50
Texas Tech. C. *Pub.*	3,827	5,035	179
Tuskegee Inst.	1,282	1,959	146
U. S. Mil. Acad. *Pub. M*	1,812	1,812	226
U. S. Naval Acad. *Pub. M*	2,304	2,304	278
Utah S. Ag. C. *Pub.*	2,619	3,420	142
Va. Poly. Inst. *Pub.*	2,992	3,256	207
Worcester Polytech. Inst. *M*	690	690	73
Totals	99,686	128,814	8,497

TABLE I—(*Continued*)

III. INDEPENDENT TECHNICAL INSTITUTIONS

2. TEACHERS COLLEGES

Institution	Students Full-time	Students All Residents	Teaching Staff
Ala. S. T. C., Florence, *Pub.*	544	1,204	31
Ala. S. T. C., Jacksonville, *Pub.*	585	1,642	42
Ala. S. T. C., Livingston	295	534	27
Ala. S. T. C., Montgomery	850	2,717	48
Ala. S. T. C., Troy, *Pub.*	406	863	33
Arizona S. T. C., Tempe, *Pub.*	1,272	1,771	70
Arkansas S. T. C., *Pub.*	736	1,331	38
Ball State T. C., *Pub.*	1,405	2,710	108
Colo. S. C. of Ed., *Pub.*	1,447	4,144	108
Concord S. T. C., *Pub.*	629	1,522	35
Delta S. T. C., *Pub.*	307	457	30
East Carolina T. C., *Pub.*	1,202	1,963	71
Fort Hays, Kans. S. C., *Pub.*	893	1,846	71
George Peabody C. for T.	685	3,164	140
Georgia T. C., *Pub.*	513	1,061	44
Harris T. C., *Pub.*	711	711	34
Henderson S. T. C., *Pub.*	550	922	36
Ill. S. N. U., Carbondale, *Pub.*	1,981	3,345	137
Ill. S. N. U., Normal, *Pub.*	1,937	3,143	201
Ill. S. T. C., Eastern, *Pub.*	1,151	1,967	85
Ill. S. T. C., Northern, *Pub.*	1,165	1,619	77
Ill. S. T. C., Western, *Pub.*	1,079	1,642	74
Indiana S. T. C., *Pub.*	1,599	2,998	122
Iowa S. T. C., *Pub.*	1,864	3,219	155
Kansas S. T. C., Emporia, *Pub.*	1,693	3,089	125
Kansas S. T. C., Pittsburg, *Pub.*	1,425	2,695	125
Kentucky S. T. C., Eastern, *Pub.*	1,094	1,921	78
Kentucky S. T. C., Western, *Pub.*	1,514	2,343	106
Mary Washington C., *Pub.*	1,225	1,693	74
Michigan S. N. C., *Pub.*	1,975	2,945	182
Michigan S. T. C., Central, *Pub.*	1,384	2,085	94
Michigan S. T. C., North, *Pub.*	641	954	55
Michigan S. T. C., West, *Pub.*	2,402	3,464	203
Mississippi S. T. C., Hattiesburg, *Pub.*	625	1,334	51
Missouri S. T. C., Central, *Pub.*	1,287	2,611	75
Missouri S. T. C., Northeast, *Pub.*	984	2,149	58
Missouri S. T. C., Northwest, *Pub.*	1,002	1,770	59
Missouri S. T. C., Southeast, *Pub.*	1,278	2,587	52
Missouri S. T. C., Southwest, *Pub.*	1,572	3,249	71
Montana S. N. C., *Pub.*	247	394	26
Morehead S. T. C., *Pub.*	516	1,103	56
Murray S. T. C., *Pub.*	1,072	1,428	55
Nebr. S. T. C., Chadron, *Pub.*	421	686	48
Nebr. S. T. C., Kearney, *Pub.*	862	1,502	55
Nebr. S. T. C., Peru, *Pub.*	526	892	45
Nebr. S. T. C., Wayne, *Pub.*	932	1,439	47
N. J. S. T. C., *Pub.*	746	1,718	53
New Mex. Normal U.	358	1,329	33
Sam Houston S. T. C., *Pub.*	1,199	2,218	63
San Diego S. C., *Pub.*	2,175	2,651	101
Stephen F. Austin S. T. C., *Pub.*	852	1,775	57
Stout Inst.	656	1,059	47
Sul Ross S. T. C., *Pub.*	364	956	29
Tenn. S. T. C., Johnson City, *Pub.*	668	1,371	49
Tenn. S. T. C., Memphis, *Pub.*	880	1,252	41
Tenn. S. T. C., Murfreesboro, *Pub.*	747	1,264	50
Texas S. T. C., East, *Pub.*	1,650	3,337	113
Texas S. T. C., North, *Pub.*	2,856	5,237	125
Texas S. T. C., Southwest, *Pub.*	1,241	3,361	61
Texas S. T. C., West, *Pub.*	966	1,616	70
Trenton S. T. C.	790	1,169	68
Va. S. T. C., Farmville, *Pub.*	905	1,208	52
Va. S. T. C., Radford, *Pub.*	506	1,224	51
Wash. C. of Ed., Bellingham, *Pub.*	921	1,597	56
Wash. C. of Ed., Cheney, *Pub.*	954	1,413	57
Wash. C. of Ed., Ellensburg, *Pub.*	721	1,158	50
Western S. C. of Colo., *Pub.*	366	735	28
Wisc. S. T. C., La Crosse, *Pub.*	806	1,194	50
Wisc. S. T. C., Milwaukee, *Pub.*	1,599	2,883	91
Wisc. S. T. C., Oshkosh, *Pub.*	868	1,723	50
Wisc. S. T. C., River Falls, *Pub.*	755	1,088	43
Wisc. S. T. C., Superior, *Pub.*	910	1,338	56
Totals	73,942	134,702	5,101

Compared to this, 553 junior colleges had an enrolment of 136,623 for 1937–38. (The February 4, 1939, issue of SCHOOL AND SOCIETY presented data concerning junior college attendance).

SUMMARY AS TO GEOGRAPHICAL DIVISIONS

A study of the nine geographical divisions of the United States on the basis of percentage increases shows that, for the first time in five years, the West South Central group has lost the leadership in percentage gain in full-time attendance. The East South Central division leads with 5.58 per cent., with the former largest gainer not far behind with 5.49 per cent. Other leaders are: South Atlantic division, 4.60 per cent.; Pacific division, 4.11 per cent.; West North Central division, 3.78 per cent. The Middle Atlantic states show the only decrease, with 0.24 per cent.

The East South Central increase of 5.58 per cent. takes in a total of 49,848 full-time students who are in attendance at 54 approved institutions in the states (given in order of percentage increase) of Mississippi, Kentucky, Alabama and Tennessee.

The West South Central group ranks second in the percentage gain of 1939 enrolment over 1938, with an increase of 5.49 per cent. in 46 approved institutions having 80,907 full-time students. The states in order of increase are Oklahoma, Louisiana, Texas and Arkansas.

Third in percentage increase is the South Atlantic division, in which eight states and the District of Columbia report 98,606 full-

TABLE II
GEOGRAPHICAL DIVISION SUMMARY

Division and state	Institutions	Full-time students		Per cent. change, 1938 to 1939
		1938	1939	
(1) *New England*	**42**	**61,094**	**61,775**	**+ 1.11**
Maine	4	3,862	4,073	+ 5.46
New Hampshire	2	4,399	4,340	− 1.34
Vermont	4	2,864	2,935	+ 2.48
Massachusetts	21	37,107	37,027	− 0.22
Rhode Island	4	4,057	4,318	+ 6.43
Connecticut	7	8,805	9,082	+ 3.15
(2) *Middle Atlantic*	**100**	**158,966**	**158,584**	**− 0.24**
New York	46	98,937	96,967	− 1.99
New Jersey	10	9,490	9,521	+ 0.33
Pennsylvania	44	50,539	52,096	+ 3.08
(3) *East North Central*	**119**	**183,603**	**189,445**	**+ 3.18**
Ohio	37	49,466	51,063	+ 3.23
Indiana	17	25,109	26,388	+ 5.09
Illinois	33	50,790	51,422	+ 1.24
Michigan	17	34,900	36,745	+ 5.29
Wisconsin	15	23,338	23,827	+ 2.10
(4) *West North Central*	**88**	**103,191**	**107,087**	**+ 3.78**
Minnesota	12	21,636	22,078	+ 2.04
Iowa	16	20,675	21,671	+ 4.82
Missouri	21	22,561	23,803	+ 5.51
North Dakota	3	3,538	3,950	+ 11.64
South Dakota	7	3,723	3,977	+ 6.82
Nebraska	12	13,561	13,949	+ 2.86
Kansas	17	17,497	17,659	+ 0.93
(5) *South Atlantic*	**103**	**94,267**	**98,606**	**+ 4.60**
Delaware	1	931	945	+ 1.50
Maryland	12	11,366	11,574	+ 1.83
District of Columbia	6	6,776	7,168	+ 5.79
Virginia	23	18,992	19,802	+ 4.26
West Virginia	5	6,001	6,605	+ 10.06
North Carolina	19	18,532	19,707	+ 6.34
South Carolina	14	10,911	11,621	+ 6.51
Georgia	17	13,160	13,460	+ 2.28
Florida	6	7,598	7,724	+ 1.66
(6) *East South Central*	**54**	**47,215**	**49,848**	**+ 5.58**
Kentucky	14	12,002	12,755	+ 6.27
Tennessee	16	13,221	13,877	+ 4.96
Alabama	15	15,385	16,164	+ 5.06
Mississippi	9	6,607	7,052	+ 6.74
(7) *West South Central*	**46**	**76,693**	**80,907**	**+ 5.49**
Arkansas	5	4,759	4,929	+ 3.57
Louisiana	10	17,841	19,020	+ 6.61
Oklahoma	5	13,748	14,665	+ 6.67
Texas	26	40,345	42,293	+ 4.83
(8) *Mountain*	**27**	**36,673**	**37,452**	**+ 2.12**
Montana	5	4,162	4,341	+ 4.30
Idaho	3	3,489	3,486	− 0.09
Wyoming	1	1,968	2,041	+ 3.71
Colorado	8	10,901	11,100	+ 1.83
New Mexico	3	2,516	2,732	+ 8.59
Arizona	2	3,838	3,927	+ 2.32
Utah	4	8,784	8,820	+ 0.41
Nevada	1	1,015	1,005	− 0.99
(9) *Pacific*	**48**	**80,437**	**83,745**	**+ 4.11**
Washington	13	20,317	20,682	+ 1.80
Oregon	9	10,670	11,345	+ 6.33
California	26	49,450	51,718	+ 4.59

time students, which is 4.60 per cent. more than a year ago. This group, in order of percentage increase, includes West Virginia, South Carolina, North Carolina, the District of Columbia, Virginia, Georgia, Maryland, Florida and Delaware.

The three Pacific states, with 83,745 full-time students in 48 approved institutions, record an increase for 1939 over 1938 of 4.11 per cent. Oregon, California and Washington is the order of percentage advance.

The fifth largest percentage of increase, 3.78 per cent., is that of the seven West North Central states which have 107,087 full-time students in 88 approved institutions. The order of states is North Dakota, South Dakota, Missouri, Iowa, Nebraska, Minnesota and Kansas.

Sixth is the East North Central division in which five states report 189,445 full-time students, an increase of 3.18 per cent. in 119 approved institutions. The states in order of increases follow: Michigan, Indiana, Ohio, Wisconsin and Illinois.

The Mountain states have 37,452 full-time students in 27 approved institutions, an advance of 2.12 per cent. The order of states in percentage gains: New Mexico, Montana, Wyoming, Arizona, Colorado, Utah, Idaho (0.09 per cent. decrease) and Nevada (0.99 per cent. decrease).

The six states of the New England group have 61,775 full-time students in 42 approved institutions, which is an increase over last year of 1.11 per cent. Four states show increases, namely, Rhode Island, Maine, Connecticut and Vermont (in the usual order), while the Massachusetts and New Hampshire figures indicate decreases of 0.22 per cent. and 1.34 per cent., respectively.

As indicated previously, the Middle Atlantic group shows a decline over last year. This result has come about despite the fact that two of the three states, Pennsylvania and New Jersey, show increases of 3.08 per cent. and 0.33 per cent., respectively. Of the 158,584 full-time students, New York has 96,967 in 46 of the 100 universities and colleges comprising the data. The Empire State decrease of 1.99 per cent. produces a decrease of 0.24 for the division as a whole.

CURRENT TRENDS IN ENROLMENT

In order to learn what is the trend in enrolment, in respect to both numbers and courses, the most significant study is that made from the Freshman Table (VII). Herein lie the choices that freshmen—and their parents—make. These choices represent more immediate popular reaction to economic conditions than do the fields being pursued by upper classmen; they constitute the present, rather than two or three years in the past.

Of the 648 institutions in the present study, 623 supplied comparative figures for freshmen of 1938 and 1939 in five large fields: liberal arts, engineering, commerce or business administration, agriculture and teaching. Their statistics may be summarized as follows:

In these 623 institutions there are 254,537 freshmen in the fields indicated, or 6.4 per cent. more than in 1938.

The total of 150,642 liberal arts freshmen is 3,236, or 2.2 per cent. more than in 1938. The gain in 400 separate colleges of arts and sciences is 2,068 freshmen, or 2.8 per cent.; in 57 public universities, it is 1,083, or 2.7 per cent. As last year, the private universities report a loss in liberal arts freshmen; 51 such institutions have enrolled 580 fewer first-year students this year than last. The 45 technological institutions and 70 teachers colleges report respectively 314 more and 311 more liberal arts freshmen than a year ago; these are increases of 7.1 per cent. and 5.6 per cent.

Engineering freshmen show by far the most significant increase. The total of 37,799 is 9,607 more than in 1938, or 34.1 per cent. Contrasted with this is the 1.5

TABLE III

	California	Chicago	Cincinnati	Columbia	Cornell	Harvard	Illinois	Indiana	Iowa	Johns Hopkins	Kansas	Michigan	Minnesota
College men	6769	1693	579	1855	1150	3574	2214	1429	1944	440	1236	2759	2622
College women	7364	1017	390	958	607	....	1532	1323	1341	....	926	1916	2107
Engineering	2700	....	1098	297	1236	155	2327	....	424	352	676	2151	2256
Law	505	215	92	510	207	1390	261	142	260	....	103	629	333
Medicine	297	435	300	442	292	522	656	466	293	296	329	476	525
Graduate school	2877	1383	184	2472	853	1050	1458	297	988	236	207	2464	1533
Agriculture	1464	....	....	....	1621	....	1604	....	....	....	....	....	1640
Architecture	176	....	....	54	141	95	311	....	....	....	*	339	*
Art	137	*	....	....	17	....	207	8	....	....	344	*	*
Commerce	2398	265	932	465	....	927	1744	1607	487	100	313	213	607
Dentistry	167	....	....	231	....	159	228	118	116	....	....	186	211
Divinity	....	132	....	....	....	71	....	....	....	....	....	*	....
Education	1717	*	474	5793	....	66	456	593	....	87	170	364	1381
Forestry	251	....	....	....	....	*	15	....	....	....	....	159	*
Journalism	61	....	....	65	....	11	144	67	....	....	....	*	*
Music	133	*	....	....	....	*	170	154	*	....	*	266	*
Pharmacy	146	....	....	246	....	....	230	....	149	....	81	78	187
Other courses	242	871	355	886	946	189	559	142	258	142	100	215	1951
Deduct duplicates	1400	....	85	63	121	....	606	75	....	....	98	117	52
Total	26004	6011	4319	14211	6949	8209	13510	6271	6260	1653	4387	12098	15361
Part-time	....	1531	6251	3667	....	805	384	159	396	3219	250	....	....
Summer session	8153	4098	1084	11950	2062	2003	3894	2051	2992	946	1266	5594	7375
Deduct duplicates	2225	1475	129	2200	362	446	1631	482	853	300	[illegible]	1899	?
Gd. tot. Nov. 1, '39	31932	10165	11525	27628	8649	10571	16157	7999	8795	5518	282	15793	22676
Gd. tot. Nov. 1, '34	21210	11320	9534	25770	7474	9177	12363	5943	7661	4465	4637	11138	16275
Gd. tot. Nov. 1, '29	25274	12747	10891	33367	7915	10866	13883	5517	7988	5992	5472	11800	21027
Exten. courses	14557	2563	352	3100	....	....	562	7035	1773	....	2090	2125	6748
Teaching staff	2067	860	647	3149	1078	1950	1657	403	645	662	257	773	872
Administrative staff	63	41	15	76	14	*	117	33	45	6	18	39	71

per cent. increase of 1938 over 1937 and the 10 per cent. increase of 1937 over 1936 for approximately the same institutions.

The 0.4 per cent. increase in the commerce or business administration field is rendered more significant when it is recalled that last year a decrease of 1.3 per cent. was reported. The total of 23,574 freshmen is 89 more than a year ago. The upward trend, which was checked last year, seems to be resuming its former course. Whether the heights of the 33 per cent. increase in 1937 over 1936 will again be attained, only time and the inclinations of American youth can tell.

Agriculture reports 10,950 freshmen, an increase of 856, or 8.5 per cent., over 1938. This continues, at approximately the same rate, the upward tendency resumed in 1938 after a small decrease in 1937.

Teachers College freshmen are reported for the first time, accounting for the large number of institutions reporting their first-year students. The reports show an increase of 1,454 freshmen, or 4.8 per cent., over 1938. Seventy colleges are responsible for the greater portion of the 31,572 students.

In assembling and recording the thousands of figures in this study for prompt publication, time has not been available for a statistical analysis of students registered in schools of law, medicine, non-professional graduate study and other fields.

ATTENDANCE IN URBAN UNIVERSITIES

In accordance with the practice of having some new aspect in each annual report, a study has been made of enrolments in certain city institutions. For this purpose the writer has taken the membership list of the Association of Urban Universities,

TABLE III—(*Continued*)

Missouri	Nebraska	Northwestern	Ohio State	Pennsylvania	Pittsburgh	Princeton	Stanford	Syracuse	Texas	Tulane	University of Washington	Virginia	Washington University	Western Reserve	Wisconsin	Yale
1324	1042	1460	1839	1046	1268	2028	3024	1043	3256	789	3083	1674	663	986	3633	2855
621	652	1295	841	562	805	....	1321	792	2322	613	3436	3	640	761	1957	....
1396	781	269	1839	479	953	381	300	425	1499	348	1352	360	375	....	1445	321
126	181	242	202	369	158	....	157	100	665	133	193	387	165	174	414	378
72	320	522	306	756	265	....	207	170	376	471	....	253	346	267	254	250
285	455	346	1311	543	1034	285	312	626	338	204	....	179	....	123	1214	713
1132	1044	....	1737	....	....	....	....	....	....	....	....	....	....	....	1378	....
....	50	....	*	105	....	....	....	69	*	45	*	66	57	45	....	82
....	104	....	*	50	....	....	37	535	191	108	*	....	264	*	*	259
352	1061	507	2130	2137	700	....	191	1248	532	245	1373	430	295	*	*	....
....	54	329	208	419	228	....	....	....	....	....	....	....	122	162	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	238
366	1079	357	2215	331	454	....	267	509	250	*	216	90	97	164	754	....
....	....	....	*	....	....	....	....	524	....	....	269	....	....	....	....	37
343	179	80	*	*	....	....	56	32	*	*	*	....	12	*	*	....
....	127	355	*	47	....	....	....	*	*	38	*	....	....	*	*	103
....	85	....	198	....	221	....	....	....	270	....	207	....	....	90	*	....
....	160	313	469	509	206	....	2818	728	173	327	....	....	154	456	219	131
63	603	....	64	6	27	....	....	507	....	96	....	618	....	....	....	....
5954	**6771**	**6075**	**13231**	**7347**	**6265**	**2694**	**4345**	**6294**	**9872**	**3225**	**10129**	**2824**	**3190**	**3228**	**11268**	**5367**
462	374	9054	....	6363	3931	....	....	347	875	1093	533	104	....	5733	....	....
3313	2231	4260	5799	1882	3310	123	929	2368	6062	872	3720	1208	1224	2120	4680	....
776	828	1253	1966	990	1492	123	370	835	1515	582	709	309	403	973	1170	....
8953	**8548**	**18136**	**17064**	**14602**	**12014**	**2694**	**4904**	**8174**	**15294**	**4608**	**13673**	**3827**	**4011**	**10108**	**14778**	**5367**
5295	**6812**	**13210**	**12556**	**10813**	**9767**	**2622**	**4018**	**6420**	**10771**	**3948**	**10991**	**3699**	**4462**	**7765**	**10743**	**5082**
6020	**9394**	**13558**	**13179**	**13828**	**13932**	**2459**	**4468**	**7236**	**8523**	**4373**	**9908**	**4410**	**4343**	**12454**	**13486**	**6184**
1434	3301	....	....	1626	1098	....	....	....	2543	....	4057	1547	3691	....	27339	315
444	400	818	905	1565	1045	318	743	564	633	466	650	343	464	768	560	756
30	17	28	12	149	57	39	115	36	30	15	65	23	25	5	38	105

which includes 41 "universities in cities, interested in the services of their communities." Of these, statistics are available for 38 universities for 1938 and 1939 enrolments.

Analysis of the data presented in Table VIII shows the following:

In cities of a population of one million or more, 15 universities have 85,452 full-time students this fall, or 2.8 per cent. less than in November, 1938, and 106,790 part-time students, or 2.8 per cent. less.

In cities of 500,000 to 1,000,000 population, 7 universities have 31,298 full-time students, or 0.7 per cent. fewer than a year ago, and 26,170 part-time students, or 4.2 per cent. fewer.

In cities of 250,000 to 500,000 population, 12 universities have 35,186 full-time students, or 1.9 per cent. more than a year ago. There are 22,341 part-time students in 11 of these universities, or 1.9 per cent. more than in 1938.

In cities of 100,000 to 250,000 population, 4 universities have 9,426 full-time students, or 2.5 per cent. fewer than a year ago, and 4,069 part-time students, or 8.7 per cent. more.

The small percentages of decrease and increase in these attendance figures make any generalization of doubtful validity. In respect to part-time enrolments, some directors of university evening schools report that attendance this fall has been adversely affected by improved industrial conditions. In some localities, over-time work in industrial plants has prevented employees from taking evening courses.

Explanatory Paragraphs

As customary the University of California reports its total as embracing its

widely separated institutions at "Berkeley, Los Angeles, San Francisco and elsewhere." The number of full-time students this fall aggregates 26,004, or 1,195 more than a year ago. The grand total of 31,932 is 2,205 greater. In addition there are 13,557 taking extension courses and 1,000 taking correspondence work (some of these counting toward a degree), so that the "super-grand total" receiving University of California instruction attains the record number of 46,489. The full-time increase of about 5 per cent. over 1938 is rather uniform throughout. Registrar Steele reports a revision of classifications. The Teachers College at Los Angeles has been discontinued. There is instead a new College of Applied Arts, and "the students in this college are grouped under the caption Liberal Arts, thus increasing disproportionately, by comparison, with last year, the number reported for this item." A Graduate School of Education has also been established at Los Angeles. "It has been deemed wise to refine the method of reporting students in education at Berkeley. Thus students in the School of Education at Berkeley have been excluded from the item entitled non-professional graduate school, thus causing a reduction in that figure." The report on freshman enrolment shows 3,496 in liberal arts, 394 in engineering, 477 in commerce, 239 in agriculture and 38 in teachers college, as compared with corresponding freshman enrolment in 1938 as follows: 2,967; 554; 505; 207; and 302. The explanation for lower figures for engineering is that all students in pre-engineering curricula are now enrolled in the College of Applied Arts. Similarly, the chemistry enrolment is "reduced by the elimination of the group at U.C.L.A. heretofore classified as pre-chemistry." In Table III the total of 2,700 in applied science is made up of 2,132 in engineering and 568 in chemistry. The 242 students denoted in the term "other courses" are composed of 153 in nursing, 69 in librarianship, and 20 unassigned. Analysis of the figures for education shows that 990 are undergraduates in the School of Education, U.C.L.A. (formerly Teachers College) and 727 are graduates in the School of Education at Berkeley. "Students in education pursuing academic objectives are shown in liberal arts and non-professional graduate school." The 1939 summer session included the following: Intersession (Berkeley), 1,375; summer session (Berkeley), 4,469; summer session (Los Angeles), 2,711. Of interest also are the figures for the U.C.L.A. campus: Liberal arts, 2,855 men and 2,622 women; agriculture, 80; commerce and finance, 931; college unassigned, 20; special students, 147; graduate students, 877; education, 990; total U.C.L.A., 8,522. The teaching staffs at all the university's institutions total 2,067, which "includes minor members." Full-time students, 26,004; in 1934, 18,892.

A somewhat lower attendance (201 less) is reported by the University of Chicago this fall, the figures returning approximately to the 1937 levels for full-time and grand total enrolment. This applies also to the freshman class in which the figure is 605 (exclusive of 46 admitted in February, 1939), as compared with 753 a year ago. In Table III the liberal arts total includes

TABLE IV

1938 AND 1939 CLASSIFICATION COMPARISONS
INSTITUTIONS
Totals of Full-time Enrolment

	Classification	1938	1939
55	Universities, public	268,844	275,458
51	Universities, private	187,196	184,766
401	Colleges	229,177	236,915
48	Technological Institutions	91,596	97,361
71	Teachers Colleges	67,826	73,152
626	**Totals**	**844,639**	**867,652**

Totals of Students, Full-time and Part-time

	Classification	1938	1939
55	Universities, public	391,076	393,051
51	Universities, private	337,445	333,877
401	Colleges	321,231	329,643
48	Technological Institutions	117,828	125,831
71	Teachers Colleges	132,359	133,533
626	**Totals**	**1,299,939**	**1,315,935**

students in art, education and music. The term other courses here takes in 655 students in the School of Social Service Administration, 166 "students-at-large" and 50 in the Graduate Library School. Counting the part-time students of University College and the 2,563 persons taking home study courses, the University of Chicago is giving instruction to 12,728. The 41 indicated as administrative officers include some who have faculty rank and who are duplicated in the faculty total. Full-time students, 6,011; in 1934, 5,950.

An increase of 10 in the full-time enrolment of the University of Cincinnati over last year is recorded this fall. There are 4,319 full-time students and a grand total of 11,525. As to freshmen the report shows 305 in liberal arts, 309 in engineering, 133 in business administration and 110 in Teachers College this year, as compared with the corresponding 1938 freshman numbers: 364; 354; 133; 80. As to Table III these explanations should be made: With engineering admissions now limited, the 1,098 students listed under engineering include 298 in the School of Applied Arts. The 355 students indicated under other courses include 229 in the School of Household Administration and 126 in the School of Nursing and Health, which now has a four-year curriculum. The 352 persons listed for extension courses are taking work counting toward a degree. Full-time students, 4,319; in 1934, 3,887.

At Columbia University, the upward trend of the past several years is checked this fall, according to the official report showing 14,211 full-time students and a grand total of 27,628. These figures are 769 and 818 smaller respectively than a year ago. The super-grand total this fall, including non-resident students estimated as 700 in special courses and 2,400 in extramural courses, mounts to 30,728. In Table III the liberal arts total of 2,813 is composed as follows: Columbia College, 1,756 men; Barnard College, 958 women; Bard College at Annandale-on-Hudson, 99 men. The tabulation for education represents the Teachers College enrolment of 5,793 graduate and undergraduate students. The term other courses takes in library service with 425 students; nursing, 232; university undergraduates, 93; optometry, 92; dental hygiene, 44. Full-time students, 14,211; in 1934, 13,819.

Slightly above that of last year—59, to be exact—is the full-time enrolment figure of 6,949 reported by Cornell University. In Table III the 1,236 students listed under applied science include 270 in chemical engineering. The total for other courses is made up of 472 students in home economics, 310 in hotel administration and 164 in veterinary medicine. As to freshman enrolment this fall, the report shows 450 in liberal arts, 436 in engineering and 415 in agriculture, as compared with corresponding figures in 1938 of 451; 421; and 413. Full-time students, 6,949; in 1934, 5,717.

A decrease of 374 students, as compared with last year, is to be observed in this fall's full-time total of 8,209 at Harvard University. The grand total is 10,571. Precisely 1,000 freshmen in liberal arts are reported, or 30 fewer than in 1938. Regarding Table III these comments should be made: The students listed under architecture include some taking landscape architecture and regional planning. Students doing work in chemistry, forestry and music are included under the graduate school heading of this table. The 11 men indicated under journalism are practicing newspaper men who are admitted to the university with a stipend for study. The term other courses here includes 85 graduate students in the School of Public Health, 34 special students, 32 traveling fellows, 24 junior fellows and 14 students in the Graduate School of Public Administration. The part-time students include 634 graduates in medicine, 169 in the Graduate School of Education and in

the curriculum for the M.A. degree in teaching. Although no record is available, "extension courses given in Harvard buildings by Harvard instructors are attended by many hundreds of students . . . under the auspices of the Massachusetts State Department of Education." Full-time students, 8,209; in 1934, 7,671.

At the University of Illinois there are 13,510 full-time students this fall, or 362 less than a year ago. As to Table III it should be explained that the 2,327 students reported under applied science include 1,803 in engineering and 524 in chemistry and chemical engineering; these latter are also included under liberal arts totals, with proper deduction in the table for duplicates. The term other courses here takes in 410 students in the School of Physical Education, 101 in library work and 48 in landscape architecture. The 1,657 indicated for the teaching staff "includes 316 non-paid members of the clinical staff." The report on freshmen shows 1,353 in liberal arts, 607 in engineering, 621 in commerce, 548 in agriculture, 3 in Teachers College, as compared with 1938 freshmen as follows: 1,480; 672; 746; 532; and 13. Full-time students, 13,510; in 1934, 10,747.

Indiana University again reports an upward attendance total, with 6,271 full-time students, or 264 more than a year ago. The freshman class, however, is a trifle smaller. There are 1,202 in liberal arts, 596 in commerce, and 153 in teachers college work, as contrasted with corresponding freshman enrolments of 1938 as follows: 1,172; 626; 163. In Table III, other courses means nurses' training. Full-time students, 6,271; in 1934, 4,607.

An increase of 359 over last year brings the current full-time registration at the State University of Iowa up to 6,260. There are 1,163 freshmen in liberal arts and 138 in engineering, as compared with 1,033 and 128 respectively in 1938. As to Table III it may be said that students in music are included under the liberal arts total and that the 258 students listed under other courses are engaged in nursing training. Full-time students, 6,260; in 1934, 4,943.

A comparison with 1938 shows that the present full-time enrolment of 1,653 at Johns Hopkins University is 388 lower and that the grand total of 5,518 is 262 lower than the corresponding totals of a year ago. It should be noted, in considering Table III, that the engineering total includes 28 taking graduate courses in engineering. The term other courses means the School of Hygiene and Public Health. The freshman report shows 125 in liberal arts, 107 in engineering and 24 in business economics this fall, as compared with the corresponding figures for last year: 131; 108; 27. Full-time students, 1,653; in 1934, 1,798.

The University of Kansas figures of 4,387 full-time and 5,282 grand-total enrolment are 34 and 29 larger, respectively, than in 1938. As to freshmen there are 770 taking liberal arts, 236 engineering and 57 in education, as compared with 795; 185; 43 a year ago. In Table III students in architecture are included under engineering. The 344 recorded under art are students in the School of Fine Arts, which includes music students also. Other courses here means nursing. Full-time students, 4,387; in 1934, 3,832.

Continuing its attendance gains, the University of Michigan this fall reports 12,098 full-time and 15,793 grand total students, or 623 and 461 respectively more than a year ago. In the freshman class the figures are: liberal arts, 1,139; engineering, 467; other courses, 154. In 1938 the corresponding freshman figures were 1,041; 435; 1,330. In Table III the total for liberal arts takes in students in art and in journalism. The 215 students listed under other courses are taking nursing courses. There are 1,738 persons enrolled in extension courses and 387 in home study courses, some of which may receive academic credit. Full-time students, 12,098; in 1934, 9,005.

At the University of Minnesota there are

15,301 full-time students, or 153 more than in 1938. The freshmen are divided as follows: 1,767 liberal arts, 716 engineering, 466 agriculture students; a year ago the corresponding figures were: 1,748; 667; 470. In Table III these explanations are pertinent: The total of 2,256 listed under engineering are students in the Institute of Technology, which includes architecture, chemistry and engineering. The figure of 1,640 for agriculture takes in also students in forestry, home economics, agricultural business and agricultural education. The term other courses here embraces the General College, 925 students; nursing, 515 students; Institute of Technology and Business, 146 students; public health nursing, 118 students; dental hygiene, 91 students; medical technology, 86 students; University College, 45 students; Institute of Technology and Agriculture, 25 students. The report does not supply the requested information as to deductions between those attending the 1939 summer session who are also enrolled for the present academic year. The reported grand total of 22,676 is accordingly not comparable with those of other universities and is therefore not listed in Table IV. Full-time students, 15,301; in 1934, 12,188.

TABLE V

STATES HAVING LARGEST FULL-TIME ENROLMENT

States	Full-time students	Rank in collegiate population	Rank in U. S. census population
New York	96,967	1	1
Pennsylvania ..	52,096	2	2
California	51,718	3	6
Illinois	51,422	4	3
Ohio	51,063	5	4
Texas	42,293	6	5
Massachusetts .	37,027	7	8
Michigan	36,745	8	7
Indiana	26,388	9	11
Wisconsin	23,827	10	13
Missouri	23,803	11	10
Minnesota	22,078	12	18
Iowa	21,671	13	19
Washington ...	20,682	14	30
Virginia	19,802	15	20
North Carolina.	19,707	16	12
Louisiana	19,020	17	22
Kansas	17,659	18	24
Alabama	16,164	19	15
Oklahoma	14,665	20	21
Nebraska	13,949	21	32
Tennessee	13,877	22	16
Georgia	13,460	23	14
Kentucky	12,755	24	17
South Carolina.	11,621	25	26

In this one-hundredth year of its founding, the University of Missouri records 5,954 full-time students on its campus at Columbia and in the School of Mines and Metallurgy at Rolla, and a grand total of 8,953. There are in addition 1,434 citizens taking the university's correspondence courses. The freshman class includes 803 in liberal arts, 408 in engineering and 410 in agriculture—all above the 1938 corresponding counts: 766; 393; 312. There were 533 more students in the 1939 summer session attendance of 3,313 than in the 1938 session. The engineering total in Table III includes 850 students at Rolla, whose courses embrace mining, metallurgical, civil, mechanical, electrical, chemical and ceramic engineering. Full-time students, 5,954; in 1934, 3,420.

Small decreases—39 and 77 respectively—are revealed in the University of Nebraska's full-time enrolment of 6,771 and grand total of 8,548 for this fall as compared with last. The freshman class has 589 in liberal arts, 309 in engineering, 385 in commerce, 388 in agriculture and 320 in Teachers College; last year the figures were 610; 305; 426; 315; 342. In Table III other courses here means 125 students in the School of Nursing and 35 in the Graduate School of Social Work. There are 3,125 citizens taking correspondence courses in the university and 176 enrolled in extension courses. Full-time students, 6,771; in 1934, 5,111.

As the new president of Northwestern University, Dr. Franklyn B. Snyder, entered upon his duties this autumn he found a full-time enrolment of 6,075, or 142 students more than last year. As to grand total the 18,136 recorded are 261 fewer than in 1938. The freshman class includes 859 in liberal arts, 107 in engineering and 241 in commerce, as compared with 1938 figures as follows: 820; 79; 229. Full-time students, 6,075; in 1934, 5,371.

With Dean McPherson in charge as acting president, Ohio State University is

somewhat more than maintaining its large attendance. The fall enrolment of 13,231 full-time students is 83 greater than last year. Due to a slightly smaller summer session, the grand total is 42 less. Freshman increases are observable in the 1939 figures: 1,388 in liberal arts, 559 in engineering, 799 in commerce, 711 in agriculture, and 758 in education, as compared with the 1938 corresponding figures: 1,246; 524; 804; 629; 746. As to Table III it should be explained that chemistry majors are included in both arts and engineering tabulations; that students in architecture are counted in engineering; that students in art and music are included in education; that journalism students are listed with liberal arts; that the agriculture total includes some students in forestry; and that the term other courses here comprehends arts-education, nursing, optometry and veterinary medicine. Full-time students, 13,231; in 1934, 10,012.

With an increase of 196, the full-time enrolment at the University of Pennsylvania this autumn is 7,347. As to freshmen, these figures are reported: Liberal arts, 402 men, 238 women; engineering, 75; commerce, 550. In 1938 the corresponding figures were: 368 men; 214 women; 62; 544. Regarding Table III it may be explained that the engineering total includes 45 students in chemistry and 149 in chemical engineering. In the report for medicine, 265 are to be credited to the Graduate School of Medicine. In the architecture total there are 9 students in landscape architecture and 8 in graduate architecture. Of the commerce total, 1,990 are students in the Wharton School and 147 in the Graduate Course in Business Administration. The education total includes 81 graduate students. The term other courses here means veterinary medicine, 188 students; Nurses Training School, 167; Pennsylvania School of Social Work, 103; oral hygiene, 51. The part-time enrolment of 6,363 includes 3,042 in the Evening School; 1,265 in College Collateral Courses; 873 in education (of whom 348 are graduate students); 877 in the Graduate School; 182 in the Pennsylvania School of Social Work; and the remainder in miscellaneous courses. Full-time students, 7,347; in 1934, 6,115.

A gain of 66 over last fall is revealed in the University of Pittsburgh's current registration of 6,265 full-time students. The freshman class includes 697 in liberal arts, 280 in engineering and 204 in commerce; last year the corresponding figures were 694; 296; 232. In Table III the engineering total takes in 229 students in "mines"; other courses include applied social science, 163 students; retail training, 27; graduate nursing, 16. In considering the education enrolment it should be remembered that the freshman and sophomore years are included in the Liberal Arts College. All extension students at Pittsburgh pursue courses counting toward a degree. Full-time students, 6,265; in 1934, 5,723.

Admitting more engineering freshmen, Princeton University limited its liberal arts entrants, so that the total this fall of 2,694 is substantially the same as that of 1938 (3 more). There are 285 in the Graduate College as compared with 262 last year. Regarding deductions for duplicates in Table III, it should be noted as usual that all in attendance in the summer school at Princeton are taking make-up courses. The 1939 freshman class includes 494 in liberal arts and 143 in engineering, as compared with 550 and 124 respectively last year. Full-time students, 2,694; in 1934, 2,622.

As is customary, the Stanford University report gives all students under liberal arts headings and again under specialized headings, with proper deductions for such duplication. The full-time total of 4,345 is 210 larger than a year ago. There are 603 freshmen in the lower division this year, which is 2 less than last. The number of

women students at Stanford, 1,321, is now more than double the earlier limitation. In Table III the total for engineering includes 27 students in chemistry. The 312 graduate students are in the Schools of Biological Sciences, Letters, Physical Sciences and Social Sciences. The 191 students listed under commerce are in the Graduate School of Business. Included in the term other courses is the work in nursing, which has 74 students. In the total for teaching staff are counted 169 teaching assistants. Full-time students, 4,345; in 1934, 3,670.

Although the freshman class is a little smaller, the full-time enrolment of 6,294 at Syracuse University this fall is 30 more than in 1938. The freshman differentiation is as follows: 467 liberal arts, 142 applied science, 357 business administration; in 1938, the corresponding figures were: 554; 159; 362. As to Table III it should be stated that the total for art includes students in music and the fine arts; and that the total for other courses is made up of 447 in home economics, 97 in the School of Speech, 85 in nursing, 52 in the Wanakena Forest Rangers and 47 in library science. Full-time students, 6,294; in 1934, 4,764.

With President Rainey taking office this fall, the University of Texas reports an enrolment of 9,872 full-time students and a grand total (deducting estimated duplicates) of 15,294. There are besides 384 citizens taking extension courses and 2,159 taking correspondence courses. As to full-time registration, the figure this fall is 96 larger than a year ago. A somewhat smaller freshman class is indicated: 1,286 in liberal arts; 303 in engineering; 67 in pharmacy; 46 in fine arts. Similar numbers for 1938 were 1,324; 328; 43; 59. As to Table III it should be stated that the 376 students in medicine are enrolled in the medical branch at Galveston; that architectural students are included under engineering; that the 191 listed for art takes in students in art, drama and music; that journalism students are included under liberal arts; and that other courses here means nursing. The deduction for summer-session duplication is estimated upon the average of 25 per cent. for such duplication. Full-time students, 9,872; in 1934, 6,836.

TABLE VI

LARGEST INSTITUTIONS

Institution	Full-time students	Rank	All resident students	Rank
California	26,004	1	31,932	2
Minnesota	15,301	2	?	?
Columbia	14,211	3	27,628	3
Illinois	13,510	4	16,157	7
Ohio State	13,231	5	17,064	6
New York University	12,745	6	36,880	1
Michigan	12,098	7	15,793	8
Wisconsin	11,268	8	14,778	11
U. of Washington	10,129	9	13,673	13
Texas	9,872	10	15,294	9
C. C. of New York	8,548	11	22,775	4
Harvard	8,209	12	10,571	20
Louisiana	7,813	13	9,993	22
Pennsylvania	7,347	14	14,602	12
Pennsylvania State	7,200	15	9,284	23
Hunter	7,000	16	11,560	17
Cornell	6,949	17	8,649	..
Nebraska	6,771	18	8,548	..
Purdue	6,767	19	7,856	..
Brooklyn	6,618	20	13,410	14
Oklahoma	6,476	21	8,576	..
Boston University	6,367	22	11,529	18
Syracuse	6,294	23	8,174	..
Indiana	6,271	24	7,999	..
Pittsburgh	6,265	25	12,014	15
Northwestern	6,075	..	18,136	5
S. California	4,876	..	15,207	10
Wayne	5,277	..	11,917	16
Cincinnati	4,319	..	11,525	19
Western Reserve	3,228	..	10,108	21
Temple	5,851	..	9,017	24
Missouri	5,954	..	8,953	25

An increase of 294 students is shown in the current report of Tulane University of Louisiana, which has a full-time registration of 3,225. The freshman class numbers 542 in liberal arts, 174 in engineering and 108 in commerce, as compared with 1938 figures as follows: 499; 159; 84. In Table III the engineering count includes 117 students in chemistry. Education and journalism students are included in the liberal arts college. Other courses in this instance are "social work, professional school and graduate medical courses." The distribution of part-time students in work that "may be applied toward a degree" is as follows: Night courses in College of Commerce, 663; courses for teachers, 340; social work, 90. Full-time students, 3,225; in 1934, 2,607.

TABLE VII

FRESHMAN ENROLMENT

	Liberal Arts		Engineering		Commerce		Agriculture		Teachers	
	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939
57 Universities, public	40,389	41,472	11,001	19,344	8,726	8,564	4,890	5,371	2,936	3,337
51 Universities, private ...	22,931	22,351	3,897	4,435	8,136	8,024	527	520	1,545	1,493
400 Colleges	73,503	75,571	1,311	1,480	4,021	4,200	391	464	3,163	3,522
45 Technological institutions	5,015	5,369	11,901	12,479	2,083	2,126	4,203	4,513	699	673
70 Teachers colleges ..	5,568	5,879	82	61	519	660	83	82	21,775	22,547
623 Totals..	**147,406**	**150,642**	**28,192**	**37,799**	**23,485**	**23,574**	**10,094**	**10,950**	**30,118**	**31,572**

After an increase of 761 a year ago over 1937, the 1939 full-time registration of the University of Washington, Seattle, is 264 smaller than in 1938. There are 1,964 freshmen in arts and sciences, 527 in engineering, 502 in economics and business, 77 in forestry, 40 in pharmacy, and 11 in "mines," as compared with the following last year: 2,110; 484; 509; 94; 61; 18. The enrolment of the College of Arts and Sciences includes students in architecture, journalism and music. The engineering total given in Table III includes 80 students in the College of Mines. Beyond the 13,673 grand total, the University of Washington has 2,977 enrolled in extension classes and 1,080 in correspondence courses. Full-time students, 10,129; in 1934, 7,541.

The full-time enrolment at the University of Virginia, 2,824, is 38 more than that of a year ago. A somewhat smaller freshman class is indicated in these figures: Liberal arts, 497; engineering, 71; commerce (included in liberal arts), 107. In 1938 the corresponding freshman groups were as follows: 545; 80; 152. In Table III the engineering total takes in 193 students in chemistry as applied science. Full-time students, 2,824; in 1934, 2,251.

At Washington University, St. Louis, the full-time registration of 3,190 is 22 below that of 1938. There are 508 liberal arts freshmen, as compared with 534 a year ago, and 149 engineering freshmen as compared with 128 in 1938. In Table III, it should be explained, the figures under commerce include some students in social work, and public and foreign service. Other courses here means nursing, which has 125 diploma candidates and 29 degree candidates. Full-time students, 3,190; in 1934, 3,400.

The 3,228 full-time students at Western Reserve University are 122 more than a year ago. The grand total of 10,108, however, is 116 smaller than in 1938. The chief increase is in the freshman class, which has 569 liberal arts students, as compared with 420 last year. As to Table III it may be said that the liberal arts total embraces students in art, chemistry, commerce, journalism and music. The term other courses takes in: Social sciences, 206 students; nursing, 179; library work, 71. Full-time students, 3,228; in 1934, 3,350.

A small decrease—170 students—is observed in the full-time enrolment of 11,268 at the University of Wisconsin. The freshman registration includes 1,900 in liberal arts, 440 in engineering, and 406 in agriculture, as compared with corresponding figures a year ago of 1,929; 476; and 436. Counting credit and non-credit extension and correspondence courses, Wisconsin's grand total of registrations is 42,117. In Table III the liberal arts total includes courses in chemistry, commerce, journalism, music and pharmacy. Students majoring in art education and applied art are listed under education. The term other courses here means the School of Nursing. Full-time students, 11,268; in 1934, 8,053.

An increase of 69 is noted in Yale's en-

TABLE VIII

URBAN UNIVERSITIES—COMPARISONS OF 1938 AND 1939 ATTENDANCE
(Members Association of Urban Universities)

Cities by Population	Full-time Students		Part-time		Grand Total	
	1938	1939	1938	1939	1938	1939
(1) 1,000,000 or over	**87,872**	**85,452**	**109,812**	**106,790**	**197,684**	**192,242**
New York City						
C. C. of N. Y., *M. Pub.*	8,628	8,548	14,624	14,227	23,252	22,775
Columbia U.	14,980	14,211	13,466	13,417	28,446	27,628
Fordham U.	3,534	3,453	3,873	3,812	7,407	7,265
Hunter C., *W. Pub.*	7,000	7,000	5,205	4,560	12,205	11,560
New York U.	14,257	12,745	24,487	24,135	38,744	36,880
Poly. Inst. of Brooklyn	552	592	2,092	2,001	2,644	2,593
St. John's U.	4,592	4,374	2,227	2,190	6,819	6,564
Chicago—Evanston						
Armour Inst. of Tech.	1,305	1,370	1,074	1,372	2,379	2,742
Northwestern	5,933	6,075	12,464	12,061	18,397	18,136
Philadelphia						
Drexel Inst.	1,744	1,752	251	205	1,995	1,957
U. of Pennsylvania	7,151	7,347	7,439	7,255	14,590	14,602
Temple U.	5,826	5,851	3,429	3,166	9,255	9,017
Detroit						
U. of Detroit	1,859	1,981	2,046	1,418	3,905	3,399
Wayne U., *Pub.*	5,468	5,277	6,691	6,640	12,159	11,917
Los Angeles						
U. of Southern California	5,043	4,876	10,444	10,331	15,487	15,207
(2) 500,000–1,000,000	**31,511**	**31,298**	**27,331**	**26,170**	**58,842**	**57,468**
Cleveland						
Western Reserve U.	3,106	3,228	7,118	6,880	10,224	10,108
Boston—Cambridge						
Boston U.	6,470	6,367	4,849	5,162	11,319	11,529
Harvard U.	8,583	8,209	2,554	2,362	11,137	10,571
St. Louis						
Washington U.	3,212	3,190	926	821	4,138	4,011
Pittsburgh						
Carnegie Tech.	2,331	2,389	3,161	1,972	5,492	4,361
U. of Pittsburgh	6,199	6,265	5,542	5,749	11,741	12,014
Buffalo						
U. of Buffalo	1,610	1,650	3,181	3,224	4,791	4,874
(3) 250,000–500,000	**34,523**	**35,186**	**21,929**	**22,341**	**56,452**	**57,527**
Washington, D. C.						
George Washington U.	1,566	1,661	4,838	5,234	6,404	6,895
Minneapolis						
U. of Minnesota, *Pub.*	15,148	15,301	?	?	15,148?	15,301?
New Orleans						
Loyola U.	957	980	1,257	1,146	2,214	2,126
Cincinnati						
U. of Cincinnati, *Pub.*	4,309	4,319	7,546	7,206	11,855	11,525
Rochester						
U. of Rochester	2,326	2,074	802	877	3,128	2,951
Louisville						
U. of Louisville, *Pub.*	1,732	2,014	1,464	1,485	3,196	3,499
Toledo						
U. of Toledo, *Pub.*	1,791	1,878	1,151	1,621	2,942	3,499
Denver						
U. of Denver	1,863	1,866	2,414	2,558	4,277	4,424
Birmingham						
Birmingham-Southern	926	870	453	333	1,379	1,203
Akron						
U. of Akron, *Pub.*	1,421	1,518	1,807	1,807	3,228	3,325
Memphis						
Southwestern U.	424	446	55	74	479	520
Providence						
Brown U.	2,060	2,259	142	..	2,202	2,259
(4) 100,000–250,000	**9,671**	**9,426**	**3,742**	**4,069**	**13,413**	**13,495**
Omaha						
U. of Omaha, *Pub.*	1,078	1,208	979	1,130	2,057	2,338
Syracuse						
U. of Syracuse	6,264	6,294	1,992	1,880	8,256	8,174
Wichita						
Mun. U. of Wichita	1,964	1,512	445	589	2,409	2,101
Evansville						
Evansville C.	365	412	326	470	691	882

rolment of 5,367 this autumn, as compared with last. As to freshmen in liberal arts the attendance is 836, or 19 fewer than in 1938. Regarding Table III it may be explained that the number entered under art includes students in sculpture and in drama, and that other courses here means the School of Nursing, in which there are 131 young women. Full-time students, 5,367; in 1934, 5,036.

EDUCATIONAL EVENTS

THE SEVENTH LAY COUNCIL ON EDUCATIONAL POLICIES DISCUSSES ECONOMIC ILLITERACY

A GREATER emphasis in the schools upon the teaching of world trade and world distribution would help to offset "the ignorance and irrational thinking about economics and business." This statement by Edward L. Thorndike was one of a series of recommendations made as part of a program of education in economic problems developed at the seventh Lay Conference on Educational Policies conducted by the Advanced School of Education, Teachers College, Columbia University, on December 7.

The topic, "How Can Economic Illiteracy Be Reduced?" was discussed in ten seminars, at which methods of attacking the problem at every level of education from the elementary school through the university were suggested.

Obstacles to the development of economic competence in the youth of the country were listed by Erling M. Hunt, professor of history, Teachers College, in the opening speech of the conference. They are: unwillingness on the part of large sections of the public to permit free discussion of controversial questions in the classroom; attempts by various groups to influence text-books written for classroom use; limited training and experience of teachers in economics, and inadequate financial provision for the public schools.

Illustrating the need for imparting thoughtful information on economics, E. L. Thorndike, professor of education, Teachers College, told of common mistakes made by a group of 76 persons above the average in intelligence.

Over half thought that no trade can possibly benefit both parties and that a country gains by swapping other commodities for gold and silver as far as possible. All available evidence goes to show that half of the adult population could easily be led to believe that the Federal Government can give every needy citizen $10 at no cost to anybody, that General Motors could cut the price of cars by 20 per cent. if it would pay no dividends or that borrowers of less than $100 should pay less than 1 per cent. interest.

Harold F. Clark, professor of education, Teachers College, in the closing address stated that only through the adoption of a comprehensive program can there be an appreciable reduction in "economic illiteracy." He maintained that a study of the "ABC's" of economics, such as problems of food, clothing, housing, recreation, savings, production, consumption, wages, labor unions and pensions, could be introduced immediately with little difficulty in schools. Major groups in American life, including industry, labor and agriculture, should cooperate with schools in discussing the more complex problems, such as governmental spending and unemployment. Educational committees of these groups could draw up statements dealing with each issue, these statements to be used as a basis for discussion in schools throughout the country.

Other speakers at the conference were Lyman Bryson and Edwin A. Lee, chairman of the morning session. Dean William F. Russell was chairman of the dinner meeting.

THE CARNEGIE CORPORATION'S GRANTS FOR EDUCATION AND SCIENCE, 1938–39

FREDERICK P. KEPPEL, president of the Carnegie Corporation of New York, in his annual report issued on December 11, announced that grants totaling $4,846,126 were made during the fiscal year 1938–39 by the corporation to organizations and individuals in the United States and in the British dominions and colonies. Of this sum, $697,200 was given for library interests, $1,157,325 for the arts, $1,253,650 for research, studies and publications, $204,921 for adult education and $1,533,030 for the general

program of the corporation. The largest grant made during the year was $250,000, given to complete the sum necessary to establish joint academic library services for Vanderbilt University, Peabody College and Scarritt College at Nashville, Tennessee. Commenting on this grant, Mr. Keppel stated that it "may well provide an example for the other communities having a group of educational institutions."

Grants for scientific research totaled $137,500 and those for educational investigation, $233,550. Grants were made to the amount of $432,500 for the purpose of carrying forward the work of the Institute of International Education, with headquarters in New York, and that of the New Zealand Council for Educational Research. The American Association for Adult Education, the National Occupational Conference, the Committee on Scientific Aids to Learning and the American Law Institute received a total of $295,400 for work in their respective fields, and $177,000 was voted to the Association of American Colleges, the American Council of Learned Societies and the National Bureau of Economic Research.

Grants of $500,436 were made for the British dominions and colonies. In South Africa these funds have been used chiefly for scientific inquiry; in New Zealand and Australia emphasis has been on educational research, libraries and social services. In Canada grants have been made primarily to continue research programs in colleges and universities and to forward library extension.

Grants made for library interests during the year included $35,500 to the American Library Association; $23,500 to the Library of Congress for the development of Indic studies and consultant service; $20,000 to the Federal Council of Churches of Christ in America for the development of its library; $8,000 to the University of Michigan for the development of microphotography, and $10,000 to Tulane University for recataloguing. Thirty-one teachers college libraries were given funds to the amount of $198,000 for the purchase of books for their collections.

In the field of the arts, $75,000 was made available to Princeton University for the development of creative arts for undergraduates; $69,500 was given to the Johns Hopkins University for the development of an arts program, and $50,000 was given to New York University for a program in scholarly arts. Among other colleges and universities receiving grants for arts programs were Goucher College, Haverford College, University of Illinois, University of Nebraska, Vassar College and Skidmore College.

The American Council of Learned Societies received six grants totaling $61,250; the American Institute of Architects, two grants totaling $55,000, and the American Institute of Graphic Arts, two grants totaling $8,000.

An appropriation of $173,050 was made to the Carnegie Foundation for the Advancement of Teaching for research, studies and publications; $79,000 was voted to the Carnegie Institution of Washington for the same purposes, and $100,000 was voted for the support of the educational program of the Carnegie Endowment for International Peace. Among other projects for which grants were made are a study of dental research, for which $53,500 was given, and a comprehensive study of the Negro in America, for which the sum of $55,000 was granted.

THE AMERICAN YOUTH COMMISSION REPORTS ON HEALTH AND EDUCATION

Two reports on health and education concluded the current series of statements by the American Youth Commission on a "Program of Action for American Youth." The commission warned against economizing on education "in order to find money for special defense budgets" and maintained that "educational deficiencies of many out-of-school young people are so great that a nation-wide program . . . is essential if they are to be effectively useful to their country in either peace or war."

A three-fold program was recommended:

1. The immediate improvement of school programs for preparing young people "for work, for use of leisure time, for home membership, for health and above all for citizenship in a democracy."

2. The improvement of the administrative financial system of schools through the amalgamation of small units, more equitable distribution of funds by the state to local school administrative areas and increased federal aid to states for education.

3. Adequate provision for the education of those young people whose parents are too poor

to help them, through the expansion of the student-aid and the work-study programs of the NYA and CCC.

Despite the increased diffusion of education during the past one hundred years, the commission points out, of the 75,000,000 adults in the United States about 36,000,000 did not finish elementary school; probably half that number failed to finish the fourth grade, and at least 3,000,000 are entirely illiterate. While improvements since 1900 have enabled younger people to have more schooling than their elders, "there are still nearly 1,000,000 children of elementary-school age who are not enrolled in any school. . . . Half of the young people who have left school have not finished the ninth grade and many of them have had far less than nine years of schooling."

In predominantly rural states, taxable resources are insufficient to support good schools and other educational facilities such as libraries, yet these very areas have the largest numbers of children in proportion to the total population.

The present international situation has caused the commission to fear that the schools "may fail to achieve, or even in some cases may be excluded from, their most important objective: so to educate the young that conflict of opinion on current issues of the day will be changed into 'a search for truth and for a wise course of action.'"

In its health program, the commission called for a wide expansion of public recreational programs, both physical and non-physical, and immediate steps toward the provision of adequate medical care for the whole population. The schools can be of great service in providing health education, regular physical examinations and physical training to all students. Agencies dealing with persons not in school should discharge similar functions. The tendency to center physical training in school on those with athletic prowess is decried. It is the belief of the commission that any public health program must have financial support from the Federal Government; such a program, however, should be operated mainly through state and local agencies.

Owen D. Young is acting chairman of the commission, and Floyd W. Reeves is the director. The present active membership of the commission consists of: Will W. Alexander, administrator of the Farm Security Administration; Ralph Budd, president of the Chicago, Burlington and Quincy Railroad; Clarence A. Dykstra, president of the University of Wisconsin; Dorothy Canfield Fisher, writer; Willard E. Givens, executive secretary of the National Education Association; Henry I. Harriman, former president of the Chamber of Commerce of the United States; the Reverend George Johnson, director of the Department of Education of the National Catholic Welfare Conference; Mordecai W. Johnson, president of Howard University; Chester H. Rowell, editor of the *San Francisco Chronicle;* William F. Russell, dean of Teachers College, Columbia University, and leader of the recent Congress on Education for Democracy; John W. Studebaker, U. S. Commissioner of Education; Henry C. Taylor, director of the Farm Foundation; Miriam Van Waters, writer and sociologist; Matthew Woll, vice-president of the American Federation of Labor; Robert E. Wood, chairman of the board, Sears, Roebuck and Company, and George F. Zook, president of the American Council on Education.

THE ORIENTAL INSTITUTE AT THE UNIVERSITY OF HAWAII

A DISTINGUISHED contribution to education in the field of Oriental studies made at the University of Hawaii is not generally known. This statement is made by a correspondent to *The Christian Science Monitor.* The situation of Hawaii and its large Oriental population were chief among the factors that caused the university to develop courses in Oriental studies.

As a significant center of Oriental culture, Honolulu, the home of the University of Hawaii, has within its environs numerous Buddhist temples, Shinto shrines and Chinese temples. The students of religion at the university may visit these temples and attend ritualistic services and ceremonies and the colorful festivals. The Oriental theater, a fascinating subject to the student of drama, can be studied at first hand, for theatrical troupes from Japan and China make frequent visits to the islands, and Oriental movies are presented every evening. The art, the music and the dance of the Orient can be seen and heard. Even the gardens and flower arrangements become objects of study. The Honolulu Academy of Arts not only has per-

manent exhibits of Japanese and Chinese art but often arranges for special exhibits of paintings and color prints as well as for dances and doll festivals.

Courses in Oriental subjects were first given at the University of Hawaii in 1920, when Tasuku Harada, former president of Doshisha University, Kyoto, established the Japanese department. Two years later, the Chinese department was organized by S. C. Lee. Since then the university has continued to schedule courses in the language and literature, the history, art and philosophy of Japan and China.

To integrate the courses of the two departments and thus give unity to the work of scholars, permanently established or visiting the university, the Oriental Institute was formed in 1935. Gregg Manners Sinclair was named director of the institute the following year. Since that time several professors of international standing have been added to the faculty, according to a report by Mr. Sinclair.

In urging American students to study Oriental culture at the University of Hawaii instead of going to a Japanese or a Chinese university, Mr. Sinclair advanced these reasons:

> In the first place, an American student does not usually know the language; and to know Japanese or Chinese well enough to go to a Tokyo or Peiping university and take notes on the lectures of professors would require that he spend from five to ten years in intensive study of the language, which would mean, too, that he would have no time in which to study the history, the religion, the philosophy, the art.
>
> On the other hand, he may come to this institute, begin his study of Japanese or of Chinese under professors who know the Western methods of language study and acquire within a reasonable time such facility with the language and with the dictionary that he can gain the meaning of books in his particular field.

Mr. Sinclair also said that the library of the Oriental Institute has grown steadily and now contains about 10,000 volumes in the Japanese language and several thousand books in English on Japan and the Japanese. With the addition of 10,000 stitched volumes of Chinese books received in the past year the total is now 24,284 volumes.

Members of the faculty include: Wing-tsit Chan, Lingnan University, professor of Chinese philosophy; Shou-yi Chen, National University of Peiping, professor of Chinese history; Junjiro Takakusu, Tokyo Imperial University, professor of Japanese Buddhism, and Shigeharu Kimura, professor of Japanese history.

"TRUDGING TO SCHOOL"

AN inquiry received at the office of SCHOOL AND SOCIETY asks how many children are still trudging along country roads to and from one-teacher schools.

The latest data from the U. S. Office of Education as to the number of one-teacher schools are for 1935–36. At that time more than half (55.6 per cent.) of all school buildings of the country were of the one-teacher type—the large majority, no doubt, of the "box-car" type. In all, there were 132,813 such school buildings. (Half of these, by the way, are located in nine northeastern and north central states.)

The number of pupils enrolled in one-teacher schools is not indicated in the statistical report of the Office of Education, but David T. Blose, assistant statistician, in reply to an inquiry informs us that the total was approximately 2,725,000 in 1938. (This would be an average of twenty pupils to each one-teacher school.)

"Trudging to school," however, is not limited to the pupils who attend one-teacher schools. While almost one fourth of the children living in rural America (open country and villages of less than 2,500 population) are now transported to and from school, the regulations in most of the states provide that the buses shall not be required to go out of their way to pick up pupils if the latter live within one mile and a half of the bus route—and in one state the "trudging" may be as long as five miles.

SCHOOL AND SOCIETY is indebted to M. S. C. Noble, Jr., for this information on school transportation—a subject of which he has recently completed an extended study in cooperation with Frank W. Cyr, assistant professor of education, Teachers College, Columbia University.

TEN OUTSTANDING EVENTS OF THE YEAR IN THE FIELD OF SCIENCE

TEN outstanding happenings in the field of science during 1939 have been selected by Watson Davis, director of Science Service. Through the courtesy of Science Service, copyright hold-

ers, the list is made available to readers of SCHOOL AND SOCIETY.

1. The splitting of the uranium atom with release of 175,000,000 electron volts of energy, forecasting possible practical production of power from within the atom.

2. The European war, with its harmful effects upon research in warring nations, and planning by scientists to make a better world to live in when peace comes.

3. Discovery off the east African coast of a large, deep-sea fish of a kind supposedly extinct since the days of the dinosaurs.

4. The beginning of regularly scheduled passenger and mail service by air across the Atlantic.

5. The departure of the U. S. Antarctic expedition, with its snow cruiser.

6. The success of the chemical sulfapyridine in treatment of pneumonia and the continued promising treatment of many other diseases with sulfanilamide and related chemicals.

7. Commercial development of frequency modulated radio broadcasting and the beginning of regular television programs.

8. "Frozen sleep" treatment of hopeless cancer cases, with regression of the disease in some.

9. Development of synthetic fibers for clothing, including nylon, vinyon, synthetic wool, from milk.

10. Use of propaganda and distribution of psychological knowledge as to how to protect against its influence.

"These may not be the most important science achievements of the year in the final judgment of history, but they are judged to be the events and discoveries that got the most attention in the press," Mr. Davis explained. "They are all important developments. It is interesting that in almost every instance it is difficult to pin the credit upon any one individual. So often progress in science is the result of group effort or work over a considerable period of time by different investigators."

THE DECEMBER MEETING OF THE AMERICAN HISTORICAL ASSOCIATION

THE American Historical Association and associated groups will convene for its fifty-fourth annual meeting December 28–30 at the Hotel Mayflower, Washington, D. C. Among the sessions in the morning of December 28 is the joint meeting of the AHA and the American Military Institute. Various phases of land and sea power will be discussed. Oliver L. Spaulding, brigadier general, U. S. A., retired, and Alfred Vagts, Institute for Advanced Study, Princeton, N. J., are among the panel chairmen. Elbert D. Thomas, U. S. Senator from Utah, will be one of the discussion leaders.

Several luncheon conferences will also be held on Thursday. Among them will be a luncheon meeting of the National Council for the Social Studies; the chairman is Ruth West, Lewis and Clark High School, Spokane, Wash.; the speaker, Guy Stanton Ford, president of the University of Minnesota.

In the afternoon, the AHA and the American Society of Church History will have a joint session, as will the AHA and the Mississippi Valley Historical Association and the AHA and the Conference of Historical Societies.

Two round tables will be held in the afternoon. Ralph Henry Gabriel, Yale University, will be chairman of the first, "How Is the Historian to Explain the Phenomenon Sometimes Called 'The Flowering of New England'?" Leaders of the discussion are Arthur E. Bestor, Columbia University; Merle Curti, Teachers College, Columbia University; Perry Miller, Harvard University; Charles Keller, Williams College; Edward C. Kirkland, Bowdoin College, and Richard H. Shryock, University of Pennsylvania. The topic of the second round table is "The Study of American Local History." The chairman is Constance McLaughlin Green, Smith College. Leaders of the discussion are Leland D. Baldwin, University of Pittsburgh; Charles A. Barker, Stanford University; Gerald M. Capers, Yale University; Hortense Powdermaker, Queens College, and Vera Shlakman, Queens College.

On Friday morning there will be a joint session of the AHA and the Agricultural History Society. One of the topics of discussion is "The Land-Grant College: A Democratic Adaptation," Earle D. Ross, Iowa State College, chairman.

Louis Adamic, author, will be chairman of the Friday luncheon conference on cultural conflict, at which Hans Kohn, Smith College, and Caroline F. Ware, the American University, will speak.

"Elementary and Secondary Education in the Middle Ages" will be the subject of discussions at the Friday evening dinner meeting of

the Mediaeval Academy of America. Lynn Thorndike, Columbia University, will be the speaker.

Joint sessions on Saturday morning are with the National Council for the Social Studies, the Southern Historical Association and the Bibliographical Society of America. A. C. Krey, University of Minnesota, will speak at the first session on "The Place of European History in the School Curriculum."

Two luncheon conferences, one on international relations and the other on American industrial history, will close the convention on Saturday.

Officers of the American Historical Association are: William Scott Ferguson, Harvard University, *president;* Max Farrand, research director, Henry E. Huntington Library and Art Gallery, San Marino, Calif., *first vice-president;* James Westfall Thompson, University of California, *second vice-president;* Dexter Perkins, University of Rochester, *secretary;* Solon J. Buck, the National Archives, *treasurer;* Lowell Joseph Ragatz, the George Washington University, *editor;* Patty W. Washington, Washington, D. C., *assistant secretary-treasurer,* and Conyers Read, University of Pennsylvania, *executive secretary.*

EDUCATIONAL NOTES AND NEWS

THE resignation of Henry W. Holmes as dean of the Harvard Graduate School of Education, a position he has held since the establishment of the school in 1920, in order that he may serve as chairman of a new Harvard University Committee on Educational Relations, was announced by the university on December 8. The resignation will be effective on September 1, 1940. Dean Holmes, in his new position as chairman of the committee, will continue his services as professor of education at the school. He will be succeeded as dean by Francis T. Spaulding, a member of the faculty of the school since 1924. Professor Spaulding has also been appointed associate dean of the school for the current academic year.

APPOINTMENTS, PROMOTIONS, RESIGNATIONS

G. WARREN SPAULDING, acting superintendent of Haskell Institute since the resignation of Russell M. Kelley, has been notified by Secretary of the Interior Harold L. Ickes of his appointment as superintendent. Mr. Kelley was transferred to Muskogee, Okla., in November, 1938, to become educational director for the Five Civilized Tribes.

EDWARD J. LYNCH has accepted the post as New England manager for the Pittsburgh Institute of Aeronautics. Mr. Lynch has resigned as assistant to Crocker Snow, director of the Massachusetts Aeronautics Commission.

CARL M. WHITE, chairman of the division of the library and library school at the University of North Carolina, will become director of the library and library school at the University of Illinois in September, 1940. Phineas L. Windsor will retire as director after thirty years of service.

W. ALBERT NOYES, JR., has been appointed head of the department of chemistry of the University of Rochester. He succeeds Victor J. Chambers, who has become professor emeritus.

WILDER PENFIELD, director of the Montreal Neurological Institute and professor of neurology at McGill University, has been elected president of the Royal College of Physicians and Surgeons of Canada.

ALPHEUS W. SMITH, chairman of the department of physics, Ohio State University, has been appointed acting dean of the Graduate School, succeeding the late George F. Arps.

DOUGLAS F. DICKERSON, for several years superintendent of schools at Winona, Minn., has succeeded the late J. E. Lunn as superintendent of schools at Nashwauk, Minn., according to *The Horace Mann Report* for November.

ERNEST I. MILLER, assistant librarian of the TVA Technical Library, Knoxville, Tenn., has been granted a leave of absence for three months to help organize a similar technical reference and research library at the Bonneville, Ore., project.

LOUIS KULCINSKI, the first director of physical education for the state of Illinois, has been appointed director of physical education at the State Teachers College, Fitchburg, Mass.

C. I. ERNISSE has been elected superintendent of schools at Vail, Iowa. He succeeds H. L. Benshoof, who has accepted a position with the Iowa state department of public safety.

HARRY LEIGH BAKER has been appointed head of the department of education, Drake University. His predecessor was Harry Victor Masters.

WILIAM P. KELLAM has accepted the librarianship of West Virginia University after resigning as librarian of the North Carolina State College, Raleigh.

THE REVEREND BENJAMIN J. STEIN has been appointed librarian of St. John's University, Collegeville, Minn. The Reverend Oliver L. Kapsner recently retired from this post.

LEONARD THORP, formerly librarian of the State Teachers College, Superior, Wis., has accepted the post of reference librarian at the Eastern Washington College of Education, Cheney. His successor is D. A. Woods.

JANET WALKER has been appointed librarian of Multnomah College, Portland, Ore. She was formerly assistant in the Reed College library.

HELEN YODER is now branch librarian of the Science Reference Library, Carnegie Institute of Technology, Pittsburgh.

GEORGE M. GLOSS, associate professor of health and physical education at the Louisiana State University, is the newly elected president of the Louisiana Health, Physical Education and Recreation Association. Other officers are Christine Moon, Louisiana Polytechnic Institute, *vice-president,* and Beatrice Hart, Baton Rouge Junior High School, *secretary.*

THE December number of *New York State Education* records several changes in the school superintendencies of the state. Charles E. Riley has been appointed superintendent of schools in Oswego, following the retirement of Frederick Leighton. Bernard A. Leonard, for two years superintendent in Rye Neck, has succeeded Claude L. Moss as superintendent in North Tonawanda. Mr. Moss resigned after having served for eight years. Henry L. Cecil, who has had experience as principal and superintendent in Iowa, Illinois and Massachusetts, succeeds Earle F. Wingate as superintendent in Tonawanda. Jerome J. Wheeler succeeds Frederick R. Darling as superintendent of the Dunkirk public schools. Martin A. Helfer is the new superintendent at Massena; his predecessor, Carl V. Warren, resigned in order to accept the superintendency at Middletown. Maurice S. Hammond, formerly a member of the New York University faculty, is now superintendent of schools at Catskill. Willis E. Dodge has resigned as superintendent of Great Neck to accept the principalship of the Hastings High School.

SEVERAL appointments and promotions have been made at the University of Illinois. In the College of Agriculture W. E. Carroll is head of the department of animal husbandry, and J. W. Lloyd, head of the department of horticulture. B. W. Fairbanks is professor of swine husbandry; Richard V. Lott, professor of pomology, and John B. Wingert, professor of floriculture. Robert L. Rosbe is assistant professor of accountancy in the School of Commerce. In the College of Liberal Arts and Sciences, Earl Edwin Klein is associate professor of social administration.

NEWLY elected officers of the Kentucky Council for the Social Studies are: Raymond Snodgrass, Paducah, *president;* Leo Ashby, Rich Pond, *vice-president;* Lucile Chapman, Ashland, *secretary-treasurer.* Howard W. Robey, Louisville, was elected editor for a third term.

OFFICERS of the Southern California Social Science Association elected at the November meeting for the present year are: W. C. Quandt, *president;* Helen Miller Bailey, *vice-president;* Lewis W. Clark, *secretary,* and Margaret Gary, *treasurer.*

H. H. REMMERS, of the Purdue University division of education and applied psychology, who is also director of the division of educational reference, has accepted an invitation to join the editorial staff of the *Journal of Educational Psychology.*

THE University of Michigan has granted leaves of absence for the second semester to Bradley M. Davis, professor of botany; George Y. Rainich, professor of mathematics; Ralph A. Sawyer, professor of physics, and William P. Wood, professor of chemical and metallurgical engineering.

ERWIN H. AMICK has resigned his position with the Standard Oil Development Company

to become an assistant professor in chemical engineering at the University of Pennsylvania.

RECENT DEATHS

MILTON DULANEY HALL, superintendent of the public schools of Fairfax County, Va., for forty-three years, died on December 2 in Burke, Va. Colonel Hall had reached the advanced age of ninety years, according to a report in the *Fairfax Herald*. After graduating from the University of Virginia, he practiced law in Fairfax. Later he became a teacher and in 1886 was appointed superintendent of schools, a position from which he retired in 1929.

WILLIAM PETERFIELD TRENT, professor emeritus of English literature at Columbia University since his retirement in 1929 and author of many biographies and books of criticism, died on December 6. He was seventy-seven years old. An exhaustive biography and bibliography on Defoe, written by Dr. Trent, is now being edited by Henry C. Hutchins. Twenty years were spent in the preparation of this work, which was completed a few years ago. His "Life of William Gilmore Simms," published in 1892, attracted the attention of President Theodore Roosevelt, who was instrumental in bringing Dr. Trent to Columbia University in 1900. From 1888 to 1900, Dr. Trent was professor of English at the University of the South and dean of the academic department. Other works by Dr. Trent were "Robert E. Lee," "John Milton, A Short Study of His Life and Works" and "War and Civilization."

J. REDDING KELLY, formerly head of the department of art at Brooklyn College and a distinguished portrait painter, died on December 8 at the age of seventy-one years. He joined the faculty of the College of the City of New York in 1905 and in 1930 was transferred to Brooklyn College. Professor Kelly received the silver Suydam medal of the National Academy of Design in 1895 and the Canon prize for figure painting in 1897.

THE REVEREND CICERO ADOLPHUS HENDERSON, formerly director of the division of business psychology at the Babson Institute and more recently minister of the Channing Church, Dorchester, Mass., died on December 8. Mr. Henderson was sixty-four years old at the time of his death. Before going to the Babson Institute, he was assistant professor of business methods at Boston University.

STANLEY SYLVESTER SEYFERT, head of the department of electrical engineering at Lehigh University, died on December 11 at the age of fifty-eight years. He had been a member of the Lehigh University faculty since his graduation in 1904. Dr. Seyfert was chairman of the Lehigh Valley section of the American Institute of Electrical Engineers.

AWARDS AND HONORS

WILLIAM BERRYMAN SCOTT, for fifty years Blair professor of geology and vertebrate paleontology at Princeton University, has been named Penrose medalist for 1939 by the Geological Society of America. A gold medal will be presented to him on December 29 at the annual meeting of the society in Minneapolis.

FREDERICK SKENE was the guest of honor at a reception by the Engineering Alumni of the School of Technology of the College of the City of New York on November 29. Professor Skene, dean of the school for eighteen years, is retiring at the end of this term.

A PORTRAIT of the late Henry Smith Munroe, formerly dean of the School of Mines, Columbia University, was unveiled in the Low Memorial Library on November 27. The artist was Mrs. H. E. Ogden Campbell.

RECENT EVENTS AND OTHER ITEMS OF INTEREST

THE dismissal of Moyer S. Fleisher, professor of bacteriology, St. Louis University, has been condemned as unjust in a report issued by the Committee on Academic Freedom and Tenure of the American Association of University Professors. The committee stated that the dismissal was the result principally of a controversy over Dr. Fleisher's sponsorship of a lecture by the Reverend Michael O'Flanagan in favor of the Loyalists in the Spanish War. University authorities were criticized on two grounds: one, that a proper hearing was denied Dr. Fleisher, and the other, that the university had shown "no sufficient reason for the extreme penalty of dismissal." The report stated that the committee "is of the opinion that Dr. Fleisher's dismissal evidences a disregard of the extramural freedom of a teacher and wishes to emphasize that interference with extramural activities should not be

regarded as of less significance than more direct violations of academic freedom of speech and inquiry."

A CONFERENCE of leaders in business, industry and education with the NYA on problems of youth and unemployment, called by Federal Security Administrator Paul V. McNutt, met in Washington, D. C., on December 13 and 14.

BECAUSE police experience has shown that crime is less rampant in areas where boys are given recreational facilities and a guiding hand, the Prosecuting Attorneys Association of Michigan, in cooperation with the local police systems, is sponsoring boys' clubs throughout Michigan, according to a report in *Recreation* for December.

ONE of the major projects of the New York State School Music Association, the seventh Annual Clinic, was held in Rochester from November 30 to December 2. Members of the Eastman School of Music symphony orchestra, band and choir appeared before the clinic members.

THE annual fall meeting of the New England History Teachers Association was held at Boston University on December 9. Sidney B. Fay, professor at Harvard University, and Edward Kirkland, Bowdoin College, spoke on "The Rôle of the History Teacher in the Present World Crisis." Other topics discussed were "The Economic Effect of the First World War on the United States" and "What Kind of Economics Do Present-day Needs Demand?" The officers of the association are: Arthur M. Schlesinger, Harvard University, *president;* Tyler Kepner, Brookline, *vice-president,* and Horace Kidger, Newton (Mass.) High School, *secretary-treasurer.*

A NOTE in the *B. C. Teacher* (Vancouver, B. C.) for November reports that programs designed especially for the rural schools of British Columbia are on the air every school morning between 9:30 and 10:00. The CBS American School of the Air programs, which the provincial authorities regard as chiefly international in character, are also utilized in the classrooms.

DURING October, 1939, placement of youth in private industry through the Junior Placement Service, a division of the NYA, operated in cooperation with state employment services, increased 75 per cent. over October, 1938. Aubrey Williams, NYA administrator, reports that special employment services for young people are now being provided in 147 cities of 41 states. In 32 of the cities where the NYA originally carried the financial responsibility, state employment services have now assumed some or all of the burden. In 52 other cities, junior placement services, modeled on the NYA pattern, are being supported by the funds of the state employment services.

AN English correspondent writes in *Childhood Education* for December that the international headquarters and the English section of the New Education Fellowship and the journal, *New Era,* 29 Tavistock Square, London, are being operated as a single unit for the present. Only a small staff remains on duty. Clare Soper, international secretary, reports: "While some of our normal activities will be brought to an end by the war, the New Education Fellowship is more needed than ever. Its international links are most precious and we shall do all in our power to maintain them intact. We realize that for the future of the world nothing is more important than that the youth of each country shall . . . keep their hearts open to youth in other countries."

A CONFERENCE of New England and New York students of foreign affairs on "The Bases of a Durable Peace" was held in New York City on December 8 and 9 under the auspices of the U. S. Committee of the International Student Service. In addition to American speakers, Hans Simons and Walter Kotschnig addressed the conference.

TUITION increases at Mount Holyoke College and Brown University have been announced. Charges for room, board and tuition will be $1,100 at Mount Holyoke College, effective for the academic year, 1940–41. This increase of $100 will apply to all classes. At Brown University the tuition will be increased $50, making the total $450 for the year. Both institutions give as reasons for the increase the decline of interest on investments. Provisions have been made for financial aid to students unable to meet the increase. Amherst College,

Williams College and Wesleyan University (Conn.) have already announced similar increases to go into effect next year.

THE California Graduate School of Design is the recipient of a grant of $10,000 from the Carnegie Corporation of New York for its experiment in art education on the graduate level. Only fifteen students are permitted to enter the school each year. Their two-year course includes classes in economics, materials, manufacturing processes, social and buying psychology; seminars in which the relation of the arts to civilization is studied, and projects in the designing, cooperatively, of home furnishings and equipment for low-cost houses financed by the FHA.

A FACULTY conference on religion and education, called by the Student Christian Movement in New York, brought together delegates from New York colleges at Vassar College on November 24 and 25. There were addresses by Frank Kingdon, president of the University of Newark, on "Education for Democracy," by Henry Noble McCracken, president of Vassar College, on "Education's Debt to Religion," and by Henry P. Van Dusen, dean of Union Theological Seminary, on "The Challenge of the Present World Situation to the Student Religious Forces in North America." Faculty representatives also presented the program of curriculum religious study in Vassar College, Colgate University, the University of Rochester and a number of other New York State institutions.

THE Associated Press on November 22 reported that the public schools of Toledo, Ohio, would be closed from November 23 to January 2 because of lack of funds. The voters of Toledo on election day defeated a proposal to provide a two-mill tax levy to make up a deficit of $600,000 and keep the schools open. The enforced vacation will save the board of education $400,000, according to *News Week* for November 27, and will leave idle 1,000 teachers and 45,000 pupils.

THE educational directors of forty local broadcasting stations in the eastern time zone met at the New York headquarters of the Columbia Broadcasting System on December 1. This meeting, under the chairmanship of Sterling Fisher, educational director of CBS, considered chiefly questions as to the most effective cooperation of the local stations with the nation-wide educational broadcasts, particularly those of the American School of the Air.

THE annual conference of the Vassar College Political Association on the place of the South in the nation was held on November 2, 3 and 4. Among those participating were Walter White, secretary of the National Association for the Advancement of Colored People; Mrs. Louise McLaren, director of the Southern Summer School for Workers, Asheville, N. C.; Wilson Gee, director of the University of Virginia Institute for Research in Social Sciences; Robert Sessions, assistant to the chairman of the TVA; Otto Klineberg, of Columbia University; Jack McMichael, chairman of the American Youth Congress, and Hugh MacRae, business man of Wilmington, N. C. Sterling Brown, Negro poet and professor of English at Howard University, gave two readings of his poetry.

AN announcement has come from the U. S. Office of Education of the monthly publication of a *Service Bulletin* of the Federal Radio Committee. Experiments, surveys and studies of significance, as well as authoritative news of educational activities using radio, will be reported in the bulletin. John W. Studebaker, chairman of the committee and United States Commissioner of Education, expects it to serve as a guide to sources of educational material designed for radio use and hopes that it will act as a clearing house for ideas, techniques and new approaches to the problem.

FULL tuition scholarships in the University of Chicago have been offered to the 96 Rhodes scholars who have been unable to return to Oxford because of the war. These scholarships, according to the December number of *The Journal of Higher Education*, can be used in any department or school of the university.

The Journal of Higher Education reports grants to the Catholic University of America and to Yale University. An $85,000 grant from the Rockefeller Foundation has enabled the Catholic University to expand the activities of its department of psychology to include the field of psychiatry. Problems involved in training teachers in remedial methods will be one

subject of study. Over half of a gift of $4,109,797 from the late Frederick W. Vanderbilt will be expended on the construction of Silliman College at Yale University, the tenth and under the present program the last residential college of the university.

ONLY twenty of the forty-eight states have established professional qualifications for state superintendents or commissioners of education, according to a study published by the Advisory Committee on Education, of which Floyd W. Reeves, director of the American Youth Commission, is chairman. Nine states of the forty-six reporting have school officers holding doctoral degrees, and three have officers holding no college degrees. The salaries range from $2,400 to $15,000, with a median of $5,000. Women are the chief school officers in Colorado, Iowa, Montana and Nevada.

RECIPIENTS of honorary degrees from the University of Paris were Robert Andrews Millikan, chairman of the executive committee of the California Institute of Technology, and Sir Humphry Rolleston, regius professor of physic at the University of Cambridge. President Lebrun and the Minister of Education, M. Yvon Delbos, attended the ceremony on November 9.

ST. LOUIS is the scene of two experiments in higher education. The first is the newly opened General College of St. Louis University, a creditless, degreeless unit with a two-year curriculum created for the personal development of students who can not or do not care to finish any of the regular college curricula. The Adult Study Center at Washington University is the second. Seven hundred men and women from the ages of 17 to 70 years, in occupations from business executive to housemaid, attend the classes given by professors of Washington University as well as by social, business and professional leaders of the city.

SHORTER ARTICLES AND DISCUSSION

MR. HUTCHINS AND THE NATURE OF KNOWLEDGE

IN one of America's widely read five-cent magazines, a multiple murder mystery was run recently. The seven-part serial maintained, throughout, its initial atmosphere of horror, which was unmixed with any real appeal to human feelings. For all the persons of the story were despicable characters, and no true sympathy could be felt for any of the nine as they were in process of being murdered by the tenth, who finally killed himself. According to the editors, this murder story proved one of the most popular ever printed in the periodical founded by Benjamin Franklin. But during the course of the publication of this superthriller an article on education appeared in the same magazine.[1] The writer, taking issue with Mr. Hutchins, advocated vocational rather than classical training for the bulk of Americans, though he would leave room for the latter as itself a vocation for the academically inclined.

Perhaps at first glance the murder mystery and the critique of a classical education seem alien in kind, united only by their simultaneous presence in a weekly journal whose editorial policy is to provide something of interest to every type of reader. However, the demand for such fiction, as shown by the unprecedented popularity of the story, coupled with the demand of the author of the article for an education of mood rather than of mind, is so significant as to give pause to the thoughtful American of to-day. Popularity is no criterion of worth (though some editors may think so). Education of mood must be concomitant with that of mind else it can not be called education; and this, at least, Mr. Hutchins' honest adversary suggested in his criticism, one-sided as his shudder at the present confusion is to be held. To learn to like and to dislike rightly remains the essence of education; but, in that learning, minds and moods are not separable. What is popular is an index to the intellectual level of a group. The reader of the murder story, for example, who knew Aristotle's "Poetics" (or Horace's "Ars Poetica," or Boileau's "L'Art Poétique") would have been able to see at once what was lacking in it: the plot was all wrong, moving neither to pity nor fear, but merely exciting vulgar curiosity. Nor would such a reader have been likely to confuse popularity

[1] John Doddridge Blaine, *The Saturday Evening Post*, pp. 23–57, June 17, 1939.

with worth. In any case the art critic who can not refer his preferences to esthetic standards is seriously handicapped, even if the thing he likes has value in reality.

But the man who would substitute mood-training for mind-training not only has exhibited a more original critical approach than the ordinary academic faultfinders of Chicago's president (those, for instance, who fear acceptance of his "first principles" means adopting the procedure of totalitarian states!), but he has also come much closer to the crux of the whole controversy than the other opponents of metaphysics. For, though Mr. Hutchins himself leans backward—perhaps to avoid the fostering of that irrational hope, education-for-character—from the ethical implications in his proposed system, the goal of his training is toward the production of citizens with good taste and good judgment, both of which bespeak the right kind of education. And, in upholding the Platonic-Aristotelian-Thomistic tradition, he has shown his own insight into the deep and unique worth of that particular report on the nature of knowledge and its relation to the good life. From Aristotle's first epistemological formulation of the problem, those able to go with his metaphysical argument have appreciated how firmly Plato's pupil rests it on rational grounds. The testimony of Greek "intellectualism" (given its most concise expression in the "Actus Purus" conception) is both intellectually and emotionally satisfactory because of its true representation of the workings of the mind on reality or, in other words, of the nature of knowledge.

The entire difference between Mr. Hutchins and his colleagues consists in opposing views on the way we humans know reality. The academician-opponent who says that the tradition Mr. Hutchins approves "is precisely the tradition from which modern science progressively freed itself"[2] is unable to see in the Baconian method, for example, that here is no genuine appreciation of the knowledge problem but only an appeal to the disorder and complexity of unreflective opinions—a method as abstract and arbitrary as the schematism of formal logic to which Bacon opposed his empiricism. That same adversary of Mr. Hutchins, in his book which was meant to refute the metaphysical basis of "The Higher Learning in America," asks this question at the outset, "If the higher learning is to be unified, is the unity to be voluntary or mandatory?" The answer to each part of the disjunction is necessarily equivocal, since no distinction is made between the knower and the world to be known, nor any account taken of the stages between ignorance and knowledge of that world. But the problem of knowing is one that lends itself readily to discussion by many who do not even know how to formulate it. The query here quoted reveals a total lack of understanding of what is actually involved in Mr. Hutchins's demand for unity and rational order in our higher learning.[3]

Philosophy, of course, was suspect long before the advent of extreme specialization and vocationalism in education; it has always been suspect, being so at the time of Aristotle no less than twenty centuries afterward, when Descartes, by doubting it, was supposed to start philosophy all over again. But, following the great Greeks and later, St. Thomas, what Descartes discovered was simply that the theory of life and the theory of knowledge are indissolubly bound up with one another. All our problems whether physical or metaphysical bring in *scientia* for their solution as well as for their formulation, though the "scientific" grasp of the nature of knowledge resembles Hercules' holding of the old man of the sea whose form changed fearfully from moment to moment. But those giants of the spirit who have reported on truth for the benefit of their less able brothers have shown a very close similarity in their accounts. "Whether they are Syrian, Greek, Egyptian, or Hindu," the late Irish mystic A.E. said in his "Candle of Vision," "the writers of the sacred books seem to me as men who had all gazed upon the same august vision."

Mr. Hutchins's twin doctrine, (a) that man is rational and (b) that philosophy is knowl-

[2] Harry D. Gideonse, "The Higher Learning in a Democracy," p. 6.

[3] In Mr. Gideonse's attack of Mr. Hutchins a constant resort to the old and fatal trick of word-personification vitiates the argument. "Science" is to be the St. George of education. But how can science "resist its own tendencies to dogmatism . . . round itself out logically and philosophically"? We suggest this effort, however, on the part of the critic.

edge is, incidentally, not unlike Descartes' thesis as given in his epochal "Discours de la méthode" three centuries ago. At the time it was printed, this treatise produced a great *retentissement* throughout Europe. The idea that intelligence is by nature equal in men, that all are provided with a faculty by which truth and error may be distinguished, was hardly a new notion in 1637; yet at the *Congrès Descartes*, meeting two years ago in France to celebrate the tercentenary year of publication of the "Discours," it was still the concern of a representative body of international philosophers. Though the author of the famous "Discourse on Method," went straight to the heart of the perennial knowledge problem, asking, first, if truth is generally accessible, and second, whether philosophy may not become as evidently known as mathematics, his assent to the dual question is still being debated. At the philosophical congress alone, a dozen large volumes were needed to hold the proceedings. And the numbers of words written and spoken since 1637 on Descartes' "remarkable manifesto" (which proclaimed man a rational creature) would—even as astronomical figures—be so large as to cause imaginations to stagger. For, apparently, so deep an instinct is our distrust of metaphysical knowledge that even the first line of the discourse seemed a revolutionary doctrine. "Good sense," the seventeenth-century French mathematician began his essay, "is, of all things among men, the most equally distributed." This (like the complementary idea that truth, which exists independent of man's measure, is to be known in all its forms as clearly and definitely as the knowledge that two plus two is four) is somehow a hard belief for us who give so much of our thought-life to race, national and creed differences. Yet these very differences, Descartes felt, were witnesses only of men's ignorance, since reason is universal. And, as to good sense being of all things among men the most equally distributed, even Mr. Hutchins concedes educative possibility to just 67 per cent. of the youth of our land who look up to their masters to be educated.

Whether or not Mr. Hutchins has made his figures too low for the educable, his insistence on a common intellectual training for students and professors, "and particularly professors," can hardly be disapproved by any one who, having no vocational ax to grind, understands the aims of education. His emphasis on study of the classics is because they are "profound with clear terms and not with obscure terms," carrying the reader into "the pure and antique clearness of centuries less learned than ours, but with more light in them," as Joubert describes the best thoughts of the past. Nowhere has the modern trenchant critic of education, the educator's educator, insisted on mastery of any dead language as essential to reading the ancient classics; instead he points to the excellent translations available. Nor does he hold modern languages a necessary part of general education. The disciplinary value of language study as such has been greatly overrated by certain language teachers, an instance of vocational advertising. Again, Goethe's oft-quoted hyperbolic remark that "he who does not know foreign languages knows nothing of his own" has been appealed to as proof of the educative function of other tongues. However, it suggests no more than exaggerated stress on the value of comparative syntax; and while such investigation may be a help in learning grammar, many persons—among them a number of great grammarians—have been able to understand syntax perfectly without the crutch of comparison with another language.

That a good reading, writing, speaking and thinking ability—the goal of Mr. Hutchins's general education—ought to be gained in our schools, goes without saying; that it may be acquired without benefit of the higher institutions of learning has been proved sporadically over and over. But this fundamental skill is just what our institutionalized education has always been looked up to to engender. Why should any educator be afraid to admit that familiarity with the tools of our most complete communication is one of the primary aims of learning, even in high schools and colleges? In the language of common human life—the educated person, having learned to use it, might observe—words gain currency and pass for true metal only if they never lose hold on realities. This fact is itself eloquent proof of that intimate interweaving of thought with life which appears in the great tradition of the nature of knowledge as revisioned by the clear-eyed educator of Chicago. If his program includes the humanities it is for the reason given

by J. J. Callahan in his masterful recent book, "The Science of Language," for the study of good literature in general: "It humanizes by keeping before the mind the noblest of human thoughts and feelings."

M. WHITCOMB HESS

ATHENS, OHIO

SOCIAL LIFE BEGINS AT TWO

To become a well-rounded, normally adjusted personality, infants under kindergarten age must frequently get away from home. Not that they need a "night out," as their fathers do, but wise mothers are finding that regular hours spent away from home environment are essential to young children's social and personal development.

About ten years ago a group of mothers, wives of professors in a university town, took a course of study in child psychology. So impressed were they by the life-moulding importance of the years up to the age of five, that they organized the first cooperative, non-profit nursery school. They rented a small house with a large yard in the hills of the university town, equipped it with carefully chosen outdoor and indoor occupational devices, and undertook the management of a nursery school run entirely for the benefit of their children. Of course nursery schools were not new. But most of them have been established not for the special benefit of little people, but for the convenience of mothers who because of employment or social duties want a place to leave the child who is not old enough to be in public school.

Some of the more advanced educators for many years have been preaching the importance of impressions and experiences in pre-school years on the character, personality and ability of the mature man or woman. Mme. Montessori was one of the pioneer advocates of especially planned, creative play for the young child rather than mere amusement surrounded by prohibitions that beget inhibitions.

The nursery school fills a place in child life that the home usually cannot satisfy. Mothers are busy with household duties and have neither time nor training to supervise creative play. But most important, in nursery school, children learn to play with others their own age. At home, brothers or sisters, if there are any, are a different age—a fact which creates more psychological problems than parents are usually aware of; the dominance of one child or the subservience of another in the home has caused complexes that remain fixed throughout life. It is like matching contestants in golf, tennis or boxing of unequal ability to expect children of different ages to attain the best in personality development under the handicap of unequal age association. In nursery school, a child has an opportunity to establish his ego in playing with children his own age with whom he must learn to get along effectively and pleasantly.

The nursery school has particular value for the child who has no brothers or sisters. One shy little boy of three, an only child, had always lived in apartments and associated with adults. When he first came to the school, he was timid and easily put upon by other children. In a few months his confidence and self-assertiveness had developed by contact with children his own age so that he became a different child, one of the dominant little personalities of the school. This never would have been possible by a continued exclusive adult companionship.

There are nursery schools that are run on the principles of child training and development rather than child amusement only, but they are likely to be expensive; it takes well-trained supervisors to give creative training to little children. But this cooperative nursery school offers all the advantages of the highest type private school at a cost less than that of the usual take-care-of-children day nursery, for the parents themselves are the business managers and share the actual work of the school. Two trained supervisors are employed, but it is a rule that mothers must take turns in helping at the school one morning each week, and, to guard against too much petticoat influence, fathers help once a month, usually on a Sunday. Thus the parents, by participating actively in the school, decrease the expense of operation and determine its policies. They keep in close touch with their children's needs and problems—also the needs and problems of other children, and so become better fitted as parents to guide and understand their sons and daughters.

During these morning hours at the school, freedom for personal development is the guiding rule. When at home, the little child's life is

circumscribed by "musts"; play is restricted to certain rooms and articles, compulsory naps, codliver oil, accurately scheduled meals, so that a few hours of as nearly complete freedom as is compatible with safety are essential if he is to develop fully. Initiative to investigate the physical and social aspects of his world is sponsored by this freedom from compulsion. Playthings are provided, and the child is then left to his own devices and the companionship of his peers. The children play outdoors whenever the weather permits, and in the big yard are simply constructed swings, teeters, ladders and other playground equipment, as well as hammers, nails and blocks of wood to construct boats, cars and houses. There are sand boxes and a garden in which to dig. This may sound like the backyard setting any child may have at home, but there are vital differences. While left more strictly alone than at home (mother isn't able constantly to watch so must often intrude with "What are you doing?" or "Don't do that!"), yet the child's activities are started in certain constructive directions at nursery school, and the equipment furnished has formative value.

The fostering of creative ability is the chief concern of parents and supervisors at the cooperative nursery school. After the mid-morning fruit juice, as they sit around a small table the supervisor asks if any one has anything interesting to tell. These two-to-five-year-olds are encouraged to talk about the things that impress them, and thus learn confidence in their ability to present ideas. They are asked to make up stories, too, and so give stimulation to creative literary ability; perhaps begin the career of future poets and novelists.

Music finds a place on the program of the school, but not the mere singing of songs that are too intricate for such young children to understand as are many nursery songs. They are first taught the elemental basis of music, rhythm. Then the rhythm of a simple rhyme is chanted on a single tone so that they learn to adjust their voices to pitch. Gradually a series of tones form melody. Thus slowly, as the child is able to grasp and follow, is an appreciation and understanding of music evolved. These children are also led to create their own music by describing the musical sounds they hear in the everyday world; the buzz of a bee, the hum of the vacuum cleaner, the patter of rain. They learn, by listening for melody, to create tunes of their own. If such training were part of the early development of every child, we should have few tone deaf, unmusical people in the world, for music sense is like a delicate bud. If it is not carefully nurtured in early youth, it fails to open in later years and drops away, blighted.

A sense of design and color is fostered in a way which is highly enjoyed by the children. At the back of the lot is a wide board fence where they may tack large pieces of blank news sheets, and with jars of colored poster paint and brush are given free rein either just to daub —which is all the two and three-year-olds do— or to create pictures. Most surprising attempts, not only at form and design but at the expression of ideas, are sometimes made. The children are never told what to paint. No one suggests "paint a picture of a puppy or a tree." Little Nancy or James is given his or her pots of yellow, blue and red poster paint and a nice white sheet of paper and left to his own inner urge. A record is kept of the painting of the children as soon as they begin to show signs of design, and the creative ability they develop when left alone is remarkable.

The advanced educational and developmental psychology of this nursery school is best shown by the set of printed rules given to parents who share the responsibility of the school, as follows:

Speak softly and as seldom as possible.
Make no comment on the child within his hearing.
Do not engage any child in conversation.
If child addresses you answer him briefly.
If child seems conscious of your presence, occupy yourself with notes or otherwise.
Do not expect supervisors to engage in conversation while they are working with children.
Do not walk around unnecessarily.

In brief, parents and supervisors efface their own presence among the children as much as possible, becoming remote guides. Each boy and girl has the joy of dwelling for three hours every morning in a child's world.

In spite of the superior advantages of this cooperatively owned and controlled school, the cost is very moderate. This group finds that $8.50 per month for one child and $12.50 for two children will cover the cost of rent, upkeep and supervisor's fees. The school is limited to twenty children. More in one school would be likely to crowd personal growth and detract

from the intimacy and friendliness that is one of the outstanding advantages of the small group. The parents are enthusiastic and proud of their cooperative nursery school, and they seem to have begun something of great value both to their children and to themselves.

RUTH RINGLE HADDOCK

BERKELEY, CALIF.

REPORTS

EIGHTH INTERNATIONAL CONFERENCE ON PUBLIC EDUCATION

THE International Bureau of Education, Geneva, through a press release recently received, has made the following report:

In spite of the very tense international situation, the following forty governments accepted the invitation of the Swiss Federal Government and sent official delegations to the eighth international conference on public education organized by the International Bureau of Education: Afghanistan, Argentine, Belgium, Brazil, Bulgaria, Canada, China, Colombia, Cuba, Egypt, Estonia, Finland, France, Germany, Greece, Guatemala, Holland, Hungary, Iceland, Iran, Ireland, Italy, Japan, Latvia, Lithuania, Luxemburg, Mexico, Norway, Peru, Poland, Portugal, Roumania, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States, Uruguay, Yugoslavia.

The conference was held at Geneva from July 17 to 22, 1939. There were eleven sessions, under the presidency of J. J. Oliveira Guimaraes, general director of education in Portugal. Three vice-presidents were elected: D. Karadjoff, Minister Plenipotentiary of Bulgaria and permanent delegate accredited to the League of Nations; I. N. Seifeddean, Director of General Affairs at the Ministry of Public Instruction, Cairo, Egypt; Carlos Lacalle, professor of economic history, director of the "Annals of Secondary Education," Republic of Uruguay.

Despite the complexity of the questions on the agenda, the representatives of the forty governments were in agreement on the voting of the recommendations to the ministries of public instruction on the three following points: the salaries of secondary school teachers, the organization of pre-school education, the teaching of geography in secondary schools. In addition, each delegate presented to the conference a concise report on the educational movements in his country during the course of the school year 1938–1939.

It is well to emphasize that the resolutions of the eighth international conference on public education were not the simple wishes of a private educational congress, but that they were adopted unanimously by the responsible delegates, appointed by forty governments whose homeland populations amount to more than 1,150,000,000 inhabitants. . . .

Among the recommendations made to the conference to the minstries of public instruction in the various countries were the following:

Whatever may be the legal position of secondary teachers, whether officials of the state, the province or the municipalities, the conditions of work should be such that, having given the necessary evidence of character, qualifications and competence, the teacher should be assured of employment for a sufficient length of time and should not be liable to be dismissed except for serious misdemeanor and after judicial enquiry. . . .

In principle, and except in special circumstances, the basic salary of any one category of secondary teachers should show no marked differences within a country.

In principle and where there is equality of work, it seems desirable that there should be no difference between the salaries of men and women teachers in secondary schools, and that special allowances should be granted to teachers with family responsibilities.

Salary increments, whether based on seniority, years of service, results of competition, importance of the district, grade or type of school, studies undertaken, subjects taught or as the result of selection should be sufficiently frequent to ensure that the maximum shall be reached before retirement and be the basis of pensions.

In principle, it is desirable that the commencing salary should not present too great a contrast with the maximum. . . .

Secondary school teachers should be assured of a sufficient pension for representing a good percentage of salary and, if need be, of a pension for their widows and orphan children.

Secondary school teachers should be entitled to leave of absence with pay, in respect of illness or maternity, comprising lengthy periods of absence in special cases, and an annuity in case of permanent infirmity. . . .

Pre-school education, which is intended for the child before it reaches the age of compulsory schooling, should be a concern of the school authorities and be available to all children.

This education should be assured by the statutory bodies (state, province, communes, etc.) or by voluntary bodies (philanthropic or religious associations, industrial undertakings, cooperatives, private individuals, etc.).

In districts where no pre-school institutions exist, the elementary school should be open to children of pre-school age, who should be offered conditions favorable to their natural development—psychological and physical. . . .

The methods used [in the pre-school period] should appeal to the spontaneous activity of children of pre-school age and should be adapted to the particular conditions of their physical, moral and mental development.

The systematic introduction to reading, writing and arithmetic should be reserved for the elementary school; pre-school education should be restricted to sensory-motor development; in particular it is essential to prepare for the later teaching of arithmetic by the use of material which will help the child to acquire notions of numbers and forms. . . .

Collaboration with the family, so necessary throughout school life, should be considered essential during the pre-school age. Parents' meetings, visits to the home, participation of parents in the activities of the school and all organizations contributing to this collaboration should be strongly encouraged.

The training of teachers for pre-school classes should always include theoretical and practical specialization preparing them for their task. In no case should this preparation be less complete than that of elementary school teachers. . . .

THE PRESENT STATUS OF TESTING IN BRAZIL

PERHAPS it was in August of 1925 that I published in SCHOOL AND SOCIETY a short article on testing in Brazil. At that time I could speak hopefully, for the little book "Tests," by Medeiros e Albuquerque, was sweeping the country. It was well written, even if general. I myself had opportunity to introduce the first edition of tests of intelligence, using the Stanford Revision of Binet-Simon. Soon thereafter began to appear fragments of Burt, Ballard, Binet-Simon of 1908, etc. But not all persons who began to use tests or invent tests understood the principles and applications, so we soon had many curiosities abroad. Also, people began to rush into print and at times with intelligence quotients which were either wrong from the point of view of psychology or were mathematical impossibilities. Names were published with the findings, something which I was taught not to do.

I also introduced in 1925 Gray's Oral Reading Paragraphs and the Thorndike-McCall Silent Reading Scale, and gave lectures on the principles of testing. In 1926, I examined a whole school here in Rio and advised as to grouping pupils.

Soon certain school people began to gather items (perhaps no one knows whence they came) and to make "tests." But after being given, no one knew just what the tests measured nor why they took the form that they did.

There is no wonder that some people began to doubt the value of the testing movement, for all that was known was the campaign promoted by those few persons who were more anxious to appear in print than to promote a scientific movement.

Of late years, government departments have been organized to do testing. The government bureaus have been swamped with papers which would yield statistics. When, in 1934, I asked a government man what would be done with the accumulation of paper, he replied that no one knew, for no one knew how to use the statistics.

And thus it has gone on through the years. At the moment there is a firm organized to promote testing in the selection of civil service employes. But their tests are simply tricks, catch questions. And items have been taken indiscriminately from many sources and without permission, as is shown in connection with editions of the Otis, Pintner, Terman, National and other tests. To-day the number of persons informed and ready to defend testing as a scientific movement is very small.

Happily there is a serious attempt just now to go back and begin all over and put testing on a firm, honest, scientific basis. The Psycho-Pedagogical Laboratory (*Consultorio Psico-Pedagogico*) of Professor Leoni Kaseff[1] promises to do this. Professor Kaseff is a man of high ethical standards and high psycho-educational training. He is beginning to establish norms, procedures and methods of guidance based on the best psychological principles. So we may yet have scientific tests and guidance here.

C. A. BAKER

RIO BAPTIST COLLEGE,
RIO DE JANEIRO, BRAZIL

[1] Professor Kaseff's address is Caixa Postal 3052, Rio de Janeiro, Brazil.

SPECIAL CORRESPONDENCE

CONSTANCY-OF-THE-IQ CONTROVERSY

PSYCHOLOGICAL concepts, like sleeping dogs and buried cats, have a way of coming to life periodically. Witness the present controversy over the I.Q., which many considered safely buried and has been disinterred at Iowa University.

At the risk of seeming to be superficial, it appears to the writer that much of this battle over the constancy of the I.Q. is a battle over a straw man. Perhaps we might take a cue from the procedure of the football coach at this juncture. Whenever a football team's coordinated functioning breaks down, the coach frequently goes back and drills on fundamentals. Perhaps in the present controversy over the I.Q., at the risk of seeming to be very elementary, it might be helpful to go back and reexamine some of the fundamentals of psychological tests and their interpretations.

Going back to the beginning we may ask, "What is a psychological test?" The definition given by the late Dr. H. H. Young has always seemed adequate:[1]

> A mental test or psychological test is merely a specially constructed arrangement of mental stunts to be uniformly presented to all persons selected for testing. In psychological phraseology a psychological test is a stimulus or series of stimuli presented to an individual or group of individuals to elicit a verbal response or motor reaction under such conditions that a permanent record thereof is made, either by the individual who is being tested or by the one doing the testing.

Next, assuming that a well-constructed test is presented in accordance with standardized instructions in good physical surroundings to a subject in good physical condition, what does it measure? The ambiguous terms, mental age and intelligent quotient, have been used very glibly, and perhaps we have read too much into such terms and assumed that in the I.Q. we had a direct and reliable measure of intelligence. Hence, when the I.Q. shifts upward in a group of children who are placed in a better environment, there is some implication that we have changed their intelligence or native endowment, when as a matter of fact we have not measured it at all.

A psychological test score or mental age in a student is simply a measure of how well he did on that particular test at the time he took it. Much confusion might have been avoided in the minds of individuals and agencies for whom we test children had we used the designation performance age rather than mental age, as it is more descriptive and is a true statement of the facts. To say that a given child has a mental age of six years and eight months suggests, to some persons with whom we must come in contact, that the child has the mentality of a child who is six years and eight months old chronologically, which is far from the facts.

An individual's performance level is dependent upon the extent and the quality of his past experience or environment. The formula for computing the I.Q. takes into consideration the extent but not the quality of the past experiences and here in my opinion is the crux of the controversy over the constancy of the I.Q. We have considered how long an individual has lived but have not considered in our formula how well he has lived. In the event we have a child of good potentiality, who has been reared in poor surroundings, shifted to a superior environment, should we not expect him to raise his I.Q.? Does it not imply that on the first examination we have failed to give proper weight to the quality of his past experiences? We have not properly interpreted his performance on the test.

Dr. Young was of the opinion that the terms, mental ability and intelligence, served no useful purpose but rather tended to hinder the proper interpretation of tests since they purport to be basic and fundamental concepts. He thought their unanalyzed use had permitted and encouraged the belief that test scores are as direct and reliable a measure of one's mental ability and intelligence as pounds are of one's weight. Dr. Young used the concept "developability level" instead of intelligence or mental ability to designate the highest level of performance the individual will execute under the most favorable circumstances for development. He contended that an individual's developability level could not be measured directly by tests, but if one had

[1] H. H. Young, *Bul. of the Extension Division*, Indiana University, 8: 26–39, 1923.

a child's performance level on a good standardized test his developability level could be estimated in terms of his present performance taken as an index of the effectiveness of his past environmental influence.

It would seem that we have placed too much dependence on the I.Q., assuming that in it we had something basic and have not given enough weight to our clinical appraisals and interpretations. Gesell[2] in a study of thirty-three cases over a decade or more found that, "in no instance did the course of growth prove whimsical or erratic." Gesell feels, however, that "the interpretive clinical judgments have more significance than the raw quotients in investigating the consisteney and stability of mental growth careers."

The writer comes back to his original thesis, namely, that much of this controversy over the constancy of the I.Q., is beside the point and has not served any useful purpose, but on the contrary has needlessly alarmed many agencies and individuals whom we are expected to serve. Perhaps the time is at hand when we should scrap the concept of the I.Q. and substitute for it the concept of "developability" or some other concept, which is not misleading.

OMAR C. HELD
THE UNIVERSITY OF PITTSBURGH

EDUCATIONAL RESEARCH AND STATISTICS

ACADEMIC PROGRESS OF SUBNORMAL PUPILS[1]

TEACHERS of subnormal classes are often asked how their pupils compare in academic achievement with those of average intelligence. The teachers' answers are usually based on outstanding cases in the group rather than upon figures taken from the whole group. In general, there is a lack of data showing the achievement of subnormal pupils as determined by standardized tests administered for a number of consecutive years. The present study is designed to determine the progress of pupils who had been in classes for subnormals over a period of four or more years.

The files in the office of the special education department of the Board of Education of Detroit were inspected. Pupils who had been in subnormal classes four years, from 1933 to 1936, were selected for study. These cases included children from special A, special B and special preparatory classes.

In Detroit, a child with an intelligence quotient less than 70 is regarded as subnormal. These subnormals are grouped on the basis of chronological age. The special A classes consist of those below thirteen years of age. Those between thirteen and sixteen years of age are placed in special B classes where boys and girls are segregated. The regular special preparatory classes consist of borderline cases whose intelligence quotients may be as high as 90. These pupils very often are returned to regular classes where they make a satisfactory adjustment. The special preparatory classes in the intermediate schools consist largely of subnormals over sixteen years chronologically who have been graduated from the special B classes.

The intelligence quotients used in this study were based upon the Stanford Revision of the Binet-Simon tests. The Stanford Achievement Test was used to determine academic achievement. Instead of taking each reading grade on the paragraph and on the word meaning tests, the average of the two was used. The same principle was applied to the arithmetic computation and arithmetic reasoning tests. Cases which were graded by tests other than the Stanford Achievement Test were discarded, as were those not having complete scores for all four years mentioned. This limited the number of cases to 326.

The range of the intelligence quotients of the cases in this study was from 46 to 87 with a mean of 68.7 and a sigma of 6.84. The mental age range for the group was from four to twelve years with a mean of 7.3 and a sigma of 1.16. The chronological age range at the time the intelligence tests were given was seven to sixteen years and six months with a mean of 10.7 and a sigma of 1.75.

The grade ranges, mean grades, standard errors of the means and standard deviations were calculated for dictation, reading, arithmetic and

[2] Arnold Gesell, *Jour. of Consulting Psychol.*, 3: 73–75, May–June, 1939.

[1] This paper is a summary of a master's thesis by Barbara Meixner: "A Study of the Academic Progress of Subnormal Pupils in the Special Education Classes in Detroit, Michigan, 1933–1936," pp. 39. Detroit: University of Detroit, June, 1940.

total average grade values earned on the Stanford Achievement Test by the 326 subnormal pupils for the four years during which they were tested. These results are presented in Table I. In general, there is an increase in means from 1933 to 1936. The amount of increase is indicated more clearly in Table II, which shows the differences between mean grade values according to one, two and three year intervals.

The data in Table II show that the means increase in all cases except one. The mean grade level for arithmetic in 1935 was lower than it was in 1934. The mean gain for dictation grade level is approximately a third of a grade for each year. This is roughly true for all of the six comparisons involving dictation grade values. For reading the gain is approximately two fifths of a grade for each year. This is also true of the six comparisons. The changes from year to year for arithmetic are irregular. Considering average grade values for dictation, reading and arithmetic, the gain from year to year is nearly two fifths of a grade. The change from 1934 to 1935 is small because an actual decline was observed in the case of arithmetic.

Table II also includes the coefficients of corre-

TABLE I

STANFORD ACHIEVEMENT TEST STATUS OF 326 SUBNORMAL PUPILS

Year of test	Grade range	Mean grade	σ_m	S.D.
1933				
Dictation	1.8– 6.5	3.28	.04	.81
Reading	0.0– 5.3	3.16	.04	.74
Arithmetic	1.8– 6.5	3.52	.05	.84
Total average	1.8– 5.9	3.31	.04	.68
1934				
Dictation	1.8– 7.7	3.63	.05	.91
Reading	1.8– 7.1	3.57	.05	.85
Arithmetic	1.8– 8.3	4.80	.05	.98
Total average	1.8– 7.1	4.07	.04	.79
1935				
Dictation	1.8– 7.7	3.94	.06	1.08
Reading	2.4– 9.5	4.03	.07	1.20
Arithmetic	1.8–10.7	4.49	.07	1.28
Total average	2.4– 8.3	4.15	.06	1.06
1936				
Dictation	1.8–11.4	4.19	.07	1.32
Reading	1.8–10.1	4.44	.08	1.41
Arithmetic	1.8–11.3	4.92	.08	1.40
Total average	2.4–10.7	4.48	.07	1.24

TABLE II

THE SIGNIFICANCE OF CHANGES IN STANFORD ACHIEVEMENT TEST GRADE VALUES

Comparisons of grade values according to intervals between tests	D	S.D.	Pearson r's	σ_D	D/σ_D	Chances in 100 of a true difference greater than zero
One-year interval						
1933–1934						
Dictation	.35	.57	.79 ± .01	.03	11.67	100
Reading	.41	.53	.79 ± .01	.03	13.67	100
Arithmetic	1.28	.64	.77 ± .02	.03	42.67	100
Total average	.76	.46	.81 ± .01	.02	38.00	100
1934–1935						
Dictation	.31	.62	.82 ± .01	.03	10.33	100
Reading	.46	.87	.79 ± .01	.04	11.50	100
Arithmetic	–.31	.84	.75 ± .02	.05	6.20	100
Total average	.08	.58	.83 ± .01	.03	2.67	99.6
1935–1936						
Dictation	.25	.84	.77 ± .02	.04	6.25	100
Reading	.41	1.13	.90 ± .01	.04	10.25	100
Arithmetic	.43	.76	.84 ± .01	.04	10.75	100
Total average	.33	.58	.88 ± .01	.03	11.00	100
Two-year interval						
1933–1935						
Dictation	.66	.74	.72 ± .02	.04	16.50	100
Reading	.87	.88	.63 ± .02	.05	17.40	100
Arithmetic	.97	.96	.66 ± .02	.05	19.40	100
Total average	.84	.74	.72 ± .02	.04	21.00	100
1934–1936						
Dictation	.56	1.00	.65 ± .02	.05	11.20	100
Reading	.87	.91	.79 ± .01	.05	17.40	100
Arithmetic	.12	.98	.72 ± .02	.06	2.00	98
Total average	.41	.81	.77 ± .02	.05	8.20	100
Three-year interval						
1933–1936						
Dictation	.91	1.17	.47 ± .03	.06	15.17	100
Reading	1.28	1.02	.72 ± .02	.06	21.33	100
Arithmetic	1.40	1.07	.65 ± .02	.06	23.33	100
Total average	1.17	.95	.65 ± .02	.05	23.40	100

lation between the grade values for the various years. These coefficients are distinctly high, especially in view of the restricted range of talent of these subnormal pupils. The data show a high tendency for pupils to maintain their relative positions from one year to another.

The relationship of intelligence quotients to grade level values is portrayed in Table III.

TABLE III

RELATION OF INTELLIGENCE QUOTIENTS TO GRADE LEVEL VALUES

Variables	1933	1934	1935	1936
Dictation .	$-.09 \pm .04$	$-.02 \pm .04$	$-.03 \pm .04$	$.25 \pm .04$
Reading ..	$.04 \pm .04$	$.12 \pm .04$	$.08 \pm .04$	$.16 \pm .04$
Arithmetic.	$.22 \pm .04$	$.26 \pm .03$	$.21 \pm .04$	$.25 \pm .04$
Total average	$.02 \pm .04$	$.09 \pm .04$	$.11 \pm .04$	$.17 \pm .04$

All of the *r*'s are extremely low. Of the twenty coefficients of correlation, only five are even more than four times their probable errors. No doubt, the restricted range of talent accounts for the low degree of relationship.

Summary and Conclusions. The academic progress of 326 subnormal pupils over a period of four years was studied. Progress was measured in terms of grade level on the dictation, reading and arithmetic parts of the Stanford Achievement Test. Gains in means were noted from year to year for twenty-three of the twenty-four comparisons that were made. Twenty-one of the twenty-three gains were statistically significant. The one loss was also statistically significant, but it was a temporary loss. The one loss may have been due to emphasis of instructors on the other subjects.

The yearly mean gain on the dictation test was approximately a third of a grade; on the reading test, roughly two fifths of a grade; on the average for dictation, reading and arithmetic, about two fifths of a grade. The yearly changes in arithmetic were very irregular.

The correlations between grade values for the various years were distinctly high considering the small range of talent. The *r*'s between grade values earned within a year of each other ranged from .75 to .90; between those earned within two years of each other, .63 to .79; between those earned within three years of each other, .47 to .72.

The relationship of the intelligence quotients to grade level values was very low. The *r*'s ranged from – .09 to .26. Five of the sixteen *r*'s were above .20. The small magnitude of the *r*'s is undoubtedly due to the restricted range.

DETROIT PUBLIC SCHOOLS CLAUDE L. NEMZEK
UNIVERSITY OF DETROIT BARBARA MEIXNER

LATEST PUBLICATIONS RECEIVED

AUSTIN, F. E. *Jesus and Earthquakes.* Pp. 91. Illustrated. Published by the author.
"The two greatest forces in the world: ethical and material."

BENNION, MILTON. *New Frontiers for American Youth.* Pp. 23. Published by the Extension Division, University of Utah.
Fourth annual Frederick William Reynolds memorial lecture delivered at the University of Utah, November 29, 1939.

Carnegie Corporation. (Report of the President and of the Treasurer for the year ended September 30, 1939.) Pp. 167. Carnegie Corporation of New York.
Extracts will be found under Educational Events in this issue.

DEYOE, G. P., and A. C. BALTZER. *Improvement Projects in Dairying.* Pp. 49. Illustrated. Bulletin No. 260. (Prepared under the direction of Department of Education, Michigan State College, East Lansing, Michigan, and the State Board of Control for Vocational Education, Lansing, Michigan.)

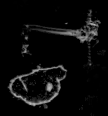
GORMLEY, M. J. *Railway Capacity and Traffic Control.* Pp. 63.
A discussion of various phases and activities of American railroads.

HEFFELFINGER, C. H., and ROBERT B. WEAVER. *Directed Studies in World History.* Pp. vi + 378. Illustrated. Mentzer, Bush.
A work book planned to develop (1) a sense of *evidence,* (2) a sense of *tolerance,* (3) a sense of *continuity.*

How Schools Can Use Radio. (Vol. II.) Pp. 36. Illustrated. National Broadcasting Company. A Radio Corporation of America Service.
Illustrating the use of radio in education including a comment by Dr. James Rowland Angell, "Radio's Place in Modern Education"; also brief references to such topics as "A New Teaching Technique," "Public Service Programs," "How Can Radio Fit into the Curriculum."

SPEARS, HAROLD, and C. H. LAWSHE, JR. Teacher's Manual to accompany the authors' *High School Journalism.* Pp. 58. Macmillan. $0.40.

Student Personnel Services in the New Jersey State Teachers College at Newark. Pp. 65. (A monograph prepared cooperatively by the personnel cabinet of the New Jersey State Teachers College at Newark.)
A stimulating and useful work describing the personnel work which has been undertaken at the Newark State Teachers College.

TUROSIENSKI, SEVERIN K. *Education in Yugoslavia.* Pp. vii + 146. Illustrated. Bulletin No. 6, 1939. United States Government Printing Office.
A description of courses in a general education pattern.

WALSH, GERTRUDE. *Sing Your Way to Better Speech.* Pp. 209. Illustrated. Dutton. $2.50.
A jingle sequence for the improvement of articulation and rhythm in speaking, arranged for individual or group instruction, for radio and concert artists, and for all who realize that "pleasant, effective speech is the first essential of a captivating personality."